10/005,224

```
Welcome to STN International!  Enter x:x

LOGINID:SSSPTA1204BXD

PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2


* * * * * * * * * *  Welcome to STN International  * * * * * * * * * *

 NEWS  1            Web Page URLs for STN Seminar Schedule - N. America
 NEWS  2            "Ask CAS" for self-help around the clock
 NEWS  3   SEP 09   CA/CAplus records now contain indexing from 1907 to the
                    present
 NEWS  4   AUG 05   New pricing for EUROPATFULL and PCTFULL effective
                    August 1, 2003
 NEWS  5   AUG 13   Field Availability (/FA) field enhanced in BEILSTEIN
 NEWS  6   AUG 18   Data available for download as a PDF in RDISCLOSURE
 NEWS  7   AUG 18   Simultaneous left and right truncation added to PASCAL
 NEWS  8   AUG 18   FROSTI and KOSMET enhanced with Simultaneous Left and Righ
                    Truncation
 NEWS  9   AUG 18   Simultaneous left and right truncation added to ANABSTR
 NEWS 10   SEP 22   DIPPR file reloaded
 NEWS 11   DEC 08   INPADOC: Legal Status data reloaded
 NEWS 12   SEP 29   DISSABS now available on STN
 NEWS 13   OCT 10   PCTFULL: Two new display fields added
 NEWS 14   OCT 21   BIOSIS file reloaded and enhanced
 NEWS 15   OCT 28   BIOSIS file segment of TOXCENTER reloaded and enhanced
 NEWS 16   NOV 24   MSDS-CCOHS file reloaded
 NEWS 17   DEC 08   CABA reloaded with left truncation
 NEWS 18   DEC 08   IMS file names changed
 NEWS 19   DEC 09   Experimental property data collected by CAS now available
                    in REGISTRY
 NEWS 20   DEC 09   STN Entry Date available for display in REGISTRY and CA/CAplus
 NEWS 21   DEC 17   DGENE: Two new display fields added
 NEWS 22   DEC 18   BIOTECHNO no longer updated
 NEWS 23   DEC 19   CROPU no longer updated; subscriber discount no longer
                    available
 NEWS 24   DEC 22   Additional INPI reactions and pre-1907 documents added to CAS
                    databases
 NEWS 25   DEC 22   IFIPAT/IFIUDB/IFICDB reloaded with new data and search fields
 NEWS 26   DEC 22   ABI-INFORM now available on STN

 NEWS EXPRESS   NOVEMBER 14. CURRENT WINDOWS VERSION IS V6.01c, CURRENT
                MACINTOSH VERSION IS V6.0b(ENG) AND V6.0Jb(JP),
                AND CURRENT DISCOVER FILE IS DATED 23 SEPTEMBER 2003
 NEWS HOURS     STN Operating Hours Plus Help Desk Availability
 NEWS INTER     General Internet Information
 NEWS LOGIN     Welcome Banner and News Items
 NEWS PHONE     Direct Dial and Telecommunication Network Access to STN
 NEWS WWW       CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that
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  * * * * * * * * * * * * * * STN  Columbus  * * * * * * * * * * * * * * *
```

```
FILE 'HOME' ENTERED AT 14:36:05 ON 24 DEC 2003

=> fil reg
COST IN U.S. DOLLARS                                    SINCE FILE      TOTAL
                                                           ENTRY    SESSION
FULL ESTIMATED COST                                         0.21       0.21

FILE 'REGISTRY' ENTERED AT 14:36:13 ON 24 DEC 2003
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STRUCTURE FILE UPDATES:   23 DEC 2003  HIGHEST RN 630084-36-5
DICTIONARY FILE UPDATES:  23 DEC 2003  HIGHEST RN 630084-36-5

TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2003

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

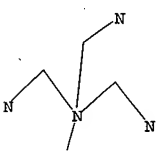
Crossover limits have been increased.  See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more
information enter HELP PROP at an arrow prompt in the file or refer
to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

=>
Uploading 10005294.str

L1      STRUCTURE UPLOADED

=> d query
L1               STR
```




```
Structure attributes must be viewed using STN Express query preparation.


=> s l1
SAMPLE SEARCH INITIATED 14:36:27 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -       2 TO ITERATE

100.0% PROCESSED       2 ITERATIONS                                 0 ANSWERS
SEARCH TIME: 00.00.01

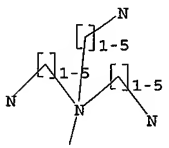
FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:             2 TO       124
PROJECTED ANSWERS:                0 TO         0

L2             0 SEA SSS SAM L1
```

```
=>
Uploading 10005294.str

L3      STRUCTURE UPLOADED

=> d query
L3                STR
```




```
Structure attributes must be viewed using STN Express query preparation.


=> s l3
SAMPLE SEARCH INITIATED 14:37:20 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -  89990 TO ITERATE

  1.1% PROCESSED    1000 ITERATIONS                                1 ANSWERS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.01

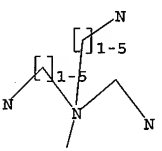
FULL FILE PROJECTIONS:  ONLINE   **INCOMPLETE**
                        BATCH    **INCOMPLETE**
PROJECTED ITERATIONS:      EXCEEDS 1000000
PROJECTED ANSWERS:         EXCEEDS    1230

L4             1 SEA SSS SAM L3

=>
Uploading 10005294.str

L5      STRUCTURE UPLOADED

=> d query
L5                STR
```




```
Structure attributes must be viewed using STN Express query preparation.


=> s l5
SAMPLE SEARCH INITIATED 14:38:01 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -   2849 TO ITERATE

 35.1% PROCESSED    1000 ITERATIONS                                0 ANSWERS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.01
```

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 53779 TO 60181
PROJECTED ANSWERS: 0 TO 0

L6 0 SEA SSS SAM L5

=> s l5 full
FULL SEARCH INITIATED 14:38:08 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 56684 TO ITERATE

100.0% PROCESSED 56684 ITERATIONS 3 ANSWERS
SEARCH TIME: 00.00.02

L7 3 SEA SSS FUL L5

=> fil caplus
COST IN U.S. DOLLARS SINCE FILE ENTRY TOTAL SESSION
FULL ESTIMATED COST 148.95 149.16

FILE 'CAPLUS' ENTERED AT 14:38:15 ON 24 DEC 2003
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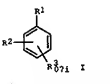
FILE COVERS 1907 - 24 Dec 2003 VOL 139 ISS 26
FILE LAST UPDATED: 23 Dec 2003 (20031223/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

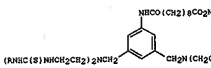
=> s l7
L8 1 L7

=> d l8 abs ibib hitstr

L8 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2003 ACS on STN
GI



I



II

AB The title compds. [I; R1 = R2, R3, NHCO(CH2)8COONa, etc.; R2, R3 = N-disubstituted CH2NH2 (wherein NH2 is substituted by a group consisting of paramagnetic metal-ion chelators and nitroxides), etc.] such as compd. II [R = 4-C6H4CH2CH(COO-)N(CH2COO-)CH2CH2N(CH2COO-)CH2CH2N(CH2COO-)2.Gd+.2Na+], which increased contrast enhancement of a MR angiog. when injected to adult rat, were prepd. In each deriv. I, termed an amplifier because the dendritic structure on each mol. terminates with multiple termini to each of which an active group can be attached, the desired effect of the active group per mol is amplified compared to conventional compds. having only one active group per mol. Amplifier mols. can include a targeting group permitting the mols. to preferentially attach to a particular anatomical or physiol. situs. Active groups are any of various pharmacol. or therapeutically active moieties, including moieties useful for magnetic-resonance contrast enhancement.

ACCESSION NUMBER: 1996:679495 CAPLUS
DOCUMENT NUMBER: 126:31177
TITLE: Preparation of dendritic amplifier molecules having multiple terminal active groups stemming from a benzyl core group as MRI contrast agents
INVENTOR(S): Keana, John F. W.; Martin, Vladimir; Ralston, William H.
PATENT ASSIGNEE(S): State of Oregon Acting by and Through the State Board of Higher Education, USA
SOURCE: U.S., 58 pp., Cont.-in-part of U.S. 5,412,148.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5567411	A	19961022	US 1994-316787	19940929
US 4863717	A	19890905	US 1986-928943	19861119
US 5135737	A	19920804	US 1989-403595	19890905
US 5252317	A	19931012	US 1992-887542	19920522

L8 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)

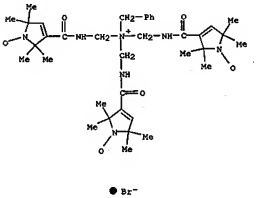
AU 9224041	A1	19940303	AU 1992-24041	19920804
US 5412148	A	19950502	US 1993-132652	19931006
			US 1986-928943	A2 19861119
			US 1989-403595	A3 19890905
			US 1992-887542	A3 19920522
			US 1993-133652	A2 19931006
			WO 1992-US6490	W 19920804

PRIORITY APPLN. INFO.:

OTHER SOURCE(S): MARPAT 126:31177

IT 184177-46-6P
RL: ARG (Analytical reagent use); BUU (Biological use, unclassified); SPN (Synthetic preparation); ANST (Analytical study); BIOL (Biological study);
PREP (Preparation); USES (Uses)
(prepn. of dendritic amplifier mols. having multiple terminal active groups stemming from a benzyl core group as MRI contrast agents)

RN 184177-46-6 CAPLUS
CN 1H-Pyrrol-1-yloxy, 3,3',3''-[(phenylmethyl)nitrilo]tris(methyleneiminocarbonyl)]tris[2,5-dihydro-2,2,5,5-tetramethyl-, bromide (9CI) (CA INDEX NAME)



● Br⁻

```
=> fil reg
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     5.79     154.95

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)          SINCE FILE      TOTAL
                                                       ENTRY    SESSION
CA SUBSCRIBER PRICE                                    -0.65      -0.65

FILE 'REGISTRY' ENTERED AT 14:39:48 ON 24 DEC 2003
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STRUCTURE FILE UPDATES:   23 DEC 2003  HIGHEST RN 630084-36-5
DICTIONARY FILE UPDATES:  23 DEC 2003  HIGHEST RN 630084-36-5

TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2003

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

Crossover limits have been increased.  See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more
information enter HELP PROP at an arrow prompt in the file or refer
to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

=>
Uploading 10005294.str

L9      STRUCTURE UPLOADED

=> d query
L9               STR
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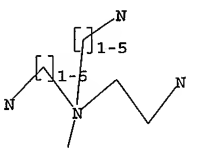


```
Structure attributes must be viewed using STN Express query preparation.


=> s l9
SAMPLE SEARCH INITIATED 14:40:04 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -   8012 TO ITERATE

 12.5% PROCESSED    1000 ITERATIONS                          0 ANSWERS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
```

```
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:       154877 TO   165603
PROJECTED ANSWERS:               0 TO        0

L10            0 SEA SSS SAM L9

=> s l9 full
FULL SEARCH INITIATED 14:40:08 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 158582 TO ITERATE

100.0% PROCESSED  158582 ITERATIONS                              54 ANSWERS
SEARCH TIME: 00.00.03

L11           54 SEA SSS FUL L9

=> fil caplus
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                   148.15     303.10

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)          SINCE FILE      TOTAL
                                                       ENTRY    SESSION
CA SUBSCRIBER PRICE                                     0.00      -0.65

FILE 'CAPLUS' ENTERED AT 14:40:15 ON 24 DEC 2003
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FILE COVERS 1907 - 24 Dec 2003  VOL 139 ISS 26
FILE LAST UPDATED: 23 Dec 2003  (20031223/ED)

  This file contains CAS Registry Numbers for easy and accurate
  substance identification.

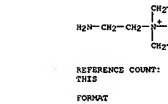

=> s l11
L12           29 L11

=> d l12 1-29 abs ibib hitstr
```

L12 ANSWER 1 OF 29 CAPLUS COPYRIGHT 2003 ACS on STN
AB A plant protection formulation contains at least one Cu2+-contg. compd. as
an active ingredient, characterized in that the active ingredient comprises an amt. of at least one chelate of Cu2+ with a polyamine compd.
ACCESSION NUMBER: 2003:715744 CAPLUS
DOCUMENT NUMBER: 139:241667
TITLE: Plant protection formulation containing a copper-polyamine chelate
INVENTOR(S): Camelynck, Rudiger; De Potter, Pierre
PATENT ASSIGNEE(S): BMS Micro-Nutrients N. V., Belg.
SOURCE: Eur. Pat. Appl., 14 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

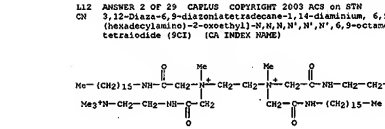
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1342413	A1	20030910	EP 2002-447035	20020308
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
PRIORITY APPLN. INFO.:			EP 2002-447035	20020308

IT 593254-24-1D, copper chelates
RL: AGR (Agricultural use); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)
(plant protection formulation contg.)
RN 593254-24-1 CAPLUS
CN Ethanaminium, 2-amino-N,N,N-tris(2-aminoethyl)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 2 OF 29 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)
CN 3,12-Diaza-6,9-diazoniatetradecane-1,14-diaminium, 6,9-bis[2-(hexadecylamino)-2-oxoethyl]-N,N,N,N',N',N',6,9-octamethyl-4,11-dioxo-, tetraiodide (9CI) (CA INDEX NAME)



●4 I⁻

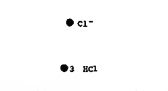
REFERENCE COUNT: 546 THERE ARE 546 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 2 OF 29 CAPLUS COPYRIGHT 2003 ACS on STN
AB The invention concerns novel ultrasound methods comprising administering to a patient a targeted vesicle compn. which comprises vesicles comprising
a lipid, protein or polymer, encapsulating a gas, in combination with a targeting ligand, and scanning the patient using ultrasound. The scanning
may comprise exposing the patient to a first type of ultrasound energy and
then interrogating the patient using a second type of ultrasound energy. The targeting ligand preferably targets tissues, cells or receptors, including myocardial cells, endothelial cells, epithelial cells, tumor cells and the glycoprotein GPIIbIIIa receptor. The methods may be used to
detect a thrombus, enhancement of an old or echogenic thrombus, low concns. of vesicles and vesicles targeted to tissues, cells or receptors.
ACCESSION NUMBER: 2003:129325 CAPLUS
DOCUMENT NUMBER: 138:193258
TITLE: Methods of imaging and treatment with targeted compositions
INVENTOR(S): Unger, Evan C.; Wu, Yungiu
PATENT ASSIGNEE(S): Bristol-Myers Squibb Medical Imaging, Inc., USA
SOURCE: U.S., 96 pp., Cont.-in-part of U.S. Ser. No. 218,660.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 8
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6521211	B1	20030218	US 1999-243640	19990203
CN 1187137	A	19980708	CN 1996-194499	19960606
CN 1083280	B	20020424		
WO 2000045856	A2	20000810	WO 2000-US2620	20000202
WO 2000045856	A3	20001215		
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1146911	A2	20011024	EP 2000-914480	20000202
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
US 2003197025	A1	20030821	US 2003-341167	20030113
PRIORITY APPLN. INFO.:			US 1995-497684	B2 19950607
			US 1996-640464	B2 19960501
			US 1996-660032	B2 19960606
			US 1998-73913P	P 19980206
			US 1998-218660	A2 19981222
			US 1999-243640	A 19990203
			WO 2000-US2620	W 20000202

IT 186750-11-8P
RL: ANS (Analytical reagent use); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)
(methods of imaging and treatment with targeted compns.)
RN 186750-11-8 CAPLUS

L12 ANSWER 3 OF 29 CAPLUS COPYRIGHT 2003 ACS on STN
AB The synthesis and x-ray crystal structure of the new tren deriv., N,N,N-tris(2-aminoethyl)-N-methylammonium chloride trihydrochloride (I), are detailed. I was prepd. by methylation of tris(2-phthalimidoethyl)amine with di-Me sulfate followed by acid deprotection. I crystallizes in the hexagonal space group P63 (a 10.625(3), c 7.466(4).ANG., V 729.9(5) .ANG.3, Z 2] and the X-ray crystal structure revealed one-dimensional chains of cations extensively hydrogen-bonded to two different types of chloride counter ions, one of which exhibits a coordination no. of nine. The cation of I was found to be a poor ligand towards both Co3+ and Ni2+.
ACCESSION NUMBER: 2002:593551 CAPLUS
DOCUMENT NUMBER: 138:106412
TITLE: Synthesis and structure of the methylated tren derivative N,N,N-tris(2-aminoethyl)-N-methylammonium chloride trihydrochloride
AUTHOR(S): Blackman, Allan G.
CORPORATE SOURCE: Department of Chemistry, University of Otago, Dunedin,
N. Z.
SOURCE: Australian Journal of Chemistry (2002), 55(4), 263-266
CODEN: AJCHAS; ISSN: 0004-9425
PUBLISHER: CSIRO Publishing
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 138:106412
IT 443649-87-4P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and crystal structure of N,N,N-tris(2-aminoethyl)-N-methylammonium chloride trihydrochloride)
RN 443649-87-4 CAPLUS
CN Ethanaminium, 2-amino-N,N-bis(2-aminoethyl)-N-methyl-, chloride, trihydrochloride (9CI) (CA INDEX NAME)



● Cl⁻

●3 HCl

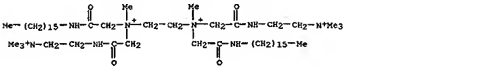
REFERENCE COUNT: 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 4 OF 29 CAPLUS COPYRIGHT 2003 ACS on STN
AB Novel targeted compns. which may be used for diagnostic and therapeutic use may comprise lipid, protein or polymer gas-filled vesicles which further comprise novel compds. of formula L-P-T, where L is a hydrophobic compd., P is a hydrophilic polymer, and T is a targeting ligand which targets tissues, cells or receptors, including myocardial cells, endothelial cells, epithelial cells, tumor cells and the glycoprotein GPIIbIIIa receptor. Compds. R1R2N-R3-CH(NR4R5)-R6-X1-P-R7-X2-T [X1, X2 is a direct bond or a linking atom or group; R1, R4 = C7-23 acyl; R2, R5 = H or lower alkyl; R3, R6, R7 = a direct bond or C1-10 alkylene; same P and T] are claimed. The compns. can be used in conjunction with diagnostic imaging, such as ultrasound, as well as therapeutic applications, such as therapeutic ultrasound. Examples include the prepn. of N,N'-bis(hexadecylaminocarbonylmethyl)-N,N'-bis[.beta.-(trimethylammonio)ethylaminocarbonylmethyl]-N,N'-dimethylethylenediamine tetraiodide and N-(1,2-dipalmitoyl-sn-glycero-3-succinyl)-PEG-protein A conjugate. Videodensitometric anal. of targeted vesicles-ultrasound backscatter quantitation is shown in a table.
ACCESSION NUMBER: 2002:353313 CAPLUS
DOCUMENT NUMBER: 136:355484
TITLE: Novel targeted compositions for diagnostic and therapeutic use
INVENTOR(S): Unger, Evan C.; Matsunaga, Terry O.; Schumann, Patricia A.
PATENT ASSIGNEE(S): ImaRx Therapeutics, Inc., USA
SOURCE: PCT Int. Appl., 206 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 9
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002036161	A2	20020510	WO 2001-US32308	20011017
WO 2002036161	A3	20030925		
W: AU, CA, JP				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
AU 2002013285	A5	20020515	AU 2002-13285	20011017
EP 1365805	A2	20031203	EP 2001-981655	20011017
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR				

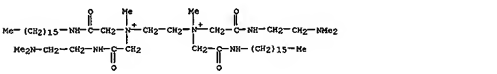
PRIORITY APPLN. INFO.: US 2000-699679 A 20001030
WO 2001-US32308 W 20011017
OTHER SOURCE(S): MARPAT 136:355484
IT 186750-11-8P 221552-96-1P
RL: DGN (Diagnostic use); PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(targeted compns. for diagnostic and therapeutic use)
RN 186750-11-8 CAPLUS
CN 3,12-Diaza-6,9-diazoniatetradecane-1,14-diaminium, 6,9-bis[2-(hexadecylamino)-2-oxoethyl]-N,N,N',N',N',6,9-octamethyl-4,11-dioxo-, tetraiodide (9CI) (CA INDEX NAME)

L12 ANSWER 4 OF 29 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)



● 4 I⁻

RN 221552-96-1 CAPLUS
CN 1,2-Ethanediaminium, N,N'-bis[2-[[2-(dimethylamino)ethyl]amino]-2-oxoethyl]-N,N'-[2-(hexadecylamino)-2-oxoethyl]-N,N'-dimethyl-, diiodide (9CI) (CA INDEX NAME)

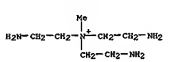


● 2 I⁻

L12 ANSWER 5 OF 29 CAPLUS COPYRIGHT 2003 ACS on STN
AB A new quaternary ammonium salt bearing three amino functionalities can be used to remove electrophiles. In most cases, final products were essentially pure after treatment of the crude reaction mixt. with this new scavenger reagent.
ACCESSION NUMBER: 2002:136819 CAPLUS
DOCUMENT NUMBER: 137:108877
TITLE: A new high-loading water-soluble scavenger for anhydrides, acid chlorides and isocyanates
AUTHOR(S): Ghanem, Noha; Martinez, Jean; Stien, Didier
CORPORATE SOURCE: LAPP-UMR5810, Universite de Montpellier 2, Montpellier, 34095, Fr.
SOURCE: Tetrahedron Letters (2002), 43(9), 1693-1695
CODEN: TELEAY; ISSN: 0040-4039
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 137:108877
IT 443649-84-1P 443649-85-2P 443649-86-3P 443649-87-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(removal of electrophiles by water-sol. ammonium salt scavenger for anhydrides, acid chlorides and isocyanates)
RN 443649-84-1 CAPLUS
CN Ethanaminium, 2-amino-N,N-bis(2-aminoethyl)-N-methyl-, iodide, tris(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 443649-83-0
CMF C7 H21 N4

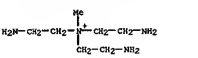


CM 2

CRN 76-05-1
CMF C2 H F3 O2

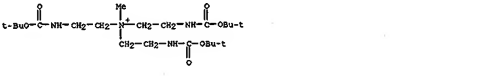
RN 443649-85-2 CAPLUS
CN Ethanaminium, 2-amino-N,N-bis(2-aminoethyl)-N-methyl-, chloride (9CI) (CA INDEX NAME)

L12 ANSWER 5 OF 29 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)



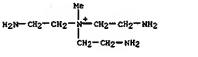
● Cl⁻

RN 443649-86-3 CAPLUS
CN Ethanaminium, 2-[[(1,1-dimethylethoxy)carbonyl]amino]-N,N-bis[2-[[(1,1-dimethylethoxy)carbonyl]amino]ethyl]-N-methyl-, iodide (9CI) (CA INDEX NAME)



● I⁻

RN 443649-87-4 CAPLUS
CN Ethanaminium, 2-amino-N,N-bis(2-aminoethyl)-N-methyl-, chloride, trihydrochloride (9CI) (CA INDEX NAME)



● Cl⁻

● 3 HCl

REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 6 OF 29 CAPLUS COPYRIGHT 2003 ACS on STN

AB Polymers are formed in the presence of nucleic acid using template polymn.
Also, polymn. occur in heterophase systems. These methods can be used for
the delivery of nucleic acids, for condensing the nucleic acid, for forming nucleic acid binding polymers, for forming supramol. complexes contg. nucleic acid and polymer, and for forming an interpolyelectrolyte complex. For example, step polymn. with DNA as a template was performed using N,N'-bis(2-aminoethyl)-1,3-propanediamine and dithiobis(succinimidylpropionate). It was possible to obtain DNA-bound polyamide as a result of the polymn. and the resulting polymer can condense template DNA into compact structures.

ACCESSION NUMBER: 2002:41634 CAPLUS
DOCUMENT NUMBER: 136:107515
TITLE: Polymer formation in presence of nucleic acid using template polymerization
INVENTOR(S): Wolff, Jon A.; Hagstrom, James E.; Budker, Vladimir G.; Trubetskoy, Vladimir S.; Slattum, Paul M.; Hanson, Lisa J.
PATENT ASSIGNEE(S): Mirus Corp., USA
SOURCE: U.S., 26 pp., Cont.-in-part of U.S. Ser. No. 778,657.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 6
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6339067	B1	20020115	US 1997-692	19971230
US 6126964	A	20001003	US 1997-778657	19970102
US 2001029829	A1	20011027	US 2001-753990	20010102
US 6383811	B2	20020507		
US 2002165184	A1	20021107	US 2001-993216	20011116
US 2002061287	A1	20020523	US 2001-4763	20011205
US 2002085989	A1	20020704	US 2001-5294	20011205

PRIORITY APPLN. INFO.: US 1997-778657 A2 19970102
US 1996-9593P P 19960104
US 1997-692 A2 19971230
US 1999-464871 A3 19991216
US 1999-174132P P 19991231

IT 389132-33-6P
RL: POF (Polymer in formulation); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(polymer formation in presence of nucleic acid using template polymn.)

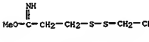
RN 389132-33-6 CAPLUS
CN 2-Propenoic acid, 2-methyl-, polymer with dimethyl 3,3'-dithiobis[propanimidate] and .alpha.,.alpha.',.alpha.'',.alpha.'''-[1,3-propanediylbis[[(2-aminoethyl)nitrilio]bis[3,1-propanediylimino(3-oxo-3,1-propanediyl)]]]tetrakis[.omega.-hydroxypoly(oxy-1,2-ethanediyl)] salt with trifluoroacetic acid (1:2), sodium salt (9CI) (CA INDEX NAME)

CM 1

CRN 389132-32-5
CMF (C8 H16 N2 O2 S2 . C4 H6 O2 . (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C31 H66 N8 O8 . 2 C2 F3 O2)x
CCI PMS

CM 2

CRN 59012-54-3
CMF C8 H16 N2 O2 S2



CM 3

CRN 79-41-4
CMF C4 H6 O2

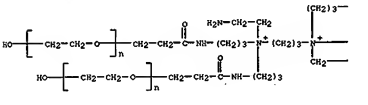
CM 4

CRN 210292-30-1
CMF (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C31 H66 N8 O8 . 2 C2 F3 O2

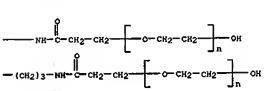
CM 5

CRN 210292-29-8
CMF (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C31 H66 N8 O8
CCI PMS

PAGE 1-A



PAGE 1-B

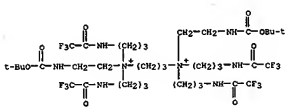


CM 6

CRN 14477-72-6
CMF C2 F3 O2

IT 210292-26-5P 210292-28-7P 210292-30-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(polymer formation in presence of nucleic acid using template polymn.)

RN 210292-26-5 CAPLUS
CN 1,3-Propanediaminium, N,N'-bis[2-[(1,1-dimethylethoxy)carbonyl]amino]ethyl]-N,N,N',N'-tetrakis[3-[(trifluoroacetyl)amino]propyl]-, dibromide (9CI) (CA INDEX NAME)

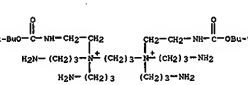


●2 Br⁻

RN 210292-28-7 CAPLUS
CN 1,3-Propanediaminium, N,N,N',N'-tetrakis(3-aminopropyl)-N,N'-bis[2-[(1,1-dimethylethoxy)carbonyl]amino]ethyl]-, salt with trifluoroacetic acid (1:2) (9CI) (CA INDEX NAME)

CM 1

CRN 210292-27-6
CMF C29 H66 N8 O4



CM 2

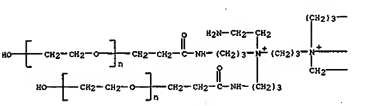
CRN 14477-72-6
CMF C2 F3 O2

RN 210292-30-1 CAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.,.alpha.',.alpha.'',.alpha.'''-[1,3-propanediylbis[[(2-aminoethyl)nitrilio]bis[3,1-propanediylimino(3-oxo-3,1-propanediyl)]]]tetrakis[.omega.-hydroxy-, salt with trifluoroacetic acid (1:2) (9CI) (CA INDEX NAME)

CM 1

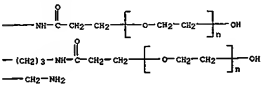
CRN 210292-29-8
CMF (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C31 H66 N8 O8
CCI PMS

PAGE 1-A



L12 ANSWER 6 OF 29 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)

PAGE 1-B



CM 2

CRN 14477-72-6
CMF C2 F3 O2

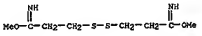
IT 389132-31-4P
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(polymer formation in presence of nucleic acid using template polymn.)

RN 389132-31-4 CAPLUS

CN Propanimidic acid, 3,3'-dithiobis-, dimethyl ester, polymer with N,N'-bis(2-aminoethyl)-1,3-propanediamine and .alpha.,.alpha.',.alpha.''-(1,3-propanediylbis[[(2-aminoethyl)nitrilo]bis(3,1-propanediylimino(3-oxo-3,1-propanediyl))]]tetrakis[.omega.-hydroxypoly(oxy-1,2-ethanediyl)] salt with
trifluoroacetic acid (1:2) (9CI) (CA INDEX NAME)

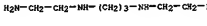
CM 1

CRN 59012-54-3
CMF C8 H16 N2 O2 S2



CM 2

CRN 4741-99-5
CMF C7 H20 N4



L12 ANSWER 6 OF 29 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)

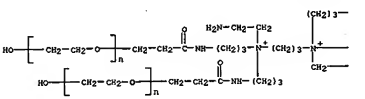
CM 3

CRN 210292-30-1
CMF (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C31 H66 N8 O8 . 2 C2 F3 O2

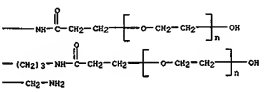
CM 4

CRN 210292-29-6
CMF (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C31 H66 N8 O8
CCI PMS

PAGE 1-A



PAGE 1-B



CM 5

CRN 14477-72-6
CMF C2 F3 O2

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

L12 ANSWER 7 OF 29 CAPLUS COPYRIGHT 2003 ACS on STN

AB Novel contrast agents which may be used for diagnostic and therapeutic use. The compns. may comprise a lipid, a protein, polymer and/or surfactant, and a gas, in combination with a targeting ligand. In preferred embodiments, the targeting ligand targets coagula, including emboli and/or thrombi, particularly in patients suffering from an arrhythmic disorder. The contrast media can be used in conjunction with diagnostic imaging, such as ultrasound, as well as therapeutic applications, such as therapeutic ultrasound. As an example [Me3N+CH2CH2NHCOCH2N+Me[CH2CONH(CH2)15Me]]2(CH2)2 4I- was prepd.

ACCESSION NUMBER: 2000:768942 CAPLUS
DOCUMENT NUMBER: 133:340225
TITLE: Targeted contrast agents for diagnostic and therapeutic use
INVENTOR(S): Unger, Evan C.; Fritz, Thomas A.; Gertz, Edward W.
PATENT ASSIGNEE(S): ImaRx Pharmaceutical Corp., USA
SOURCE: U.S., 76 pp., Cont.-in-part of U.S. Ser. No. 660,032, abandoned.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 9
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6139819	A	20001031	US 1997-932273	19970917
CN 1187137	A	19980708	CN 1996-194499	19960606
CN 1083280	B	20020424		
US 6033645	A	20000307	US 1996-666129	19960619
WO 9913919	A1	19990325	WO 1998-US18858	19980909
W: AU, CA				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
AU 9893830	A1	19990405	AU 1998-93830	19980909
EP 959908	A1	19991201	EP 1998-946919	19980909
R: DE, FR, GB, IT				

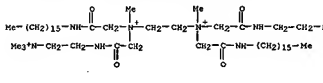
PRIORITY APPLN. INFO.: US 1995-497694 B2 19950607
US 1996-640464 B2 19960501
US 1996-660032 B2 19960606
US 1996-666129 A2 19960619
US 1997-932273 A 19970917
WO 1998-US18858 W 19980909

IT 186750-11-8P
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(phospholipid-like compds. for targeted contrast agents for diagnostic and therapeutic use)

RN 186750-11-8 CAPLUS

CN 3,12-Diaza-6,9-diazoniatetradecane-1,14-diaminium, 6,9-bis[2-(hexadecylamino)-2-oxoethyl]-N,N,N,N',N',N',6,9-octamethyl-4,11-dioxo-, tetraiodide (9CI) (CA INDEX NAME)

L12 ANSWER 7 OF 29 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)



●4 I⁻

REFERENCE COUNT: 53 THERE ARE 53 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE
FORMAT

L12 ANSWER 8 OF 29 CAPLUS COPYRIGHT 2003 ACS on STN

AB The synthesis of a water-sol. dendrimer and its internal functionalization
with benzyl bromide is reported. Despite the use of excess reagent, only four of the possible six nitrogens could be reacted. These four reactions
have occurred in a random fashion, as confirmed by 13C NMR.

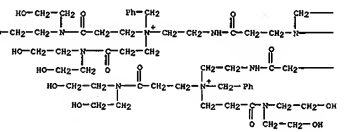
ACCESSION NUMBER:	2000:595444 CAPLUS
DOCUMENT NUMBER:	133:335547
TITLE:	Post synthetic modification of the hydrophobic interior of a water-soluble dendrimer
AUTHOR(S):	Twyman, L. J.
CORPORATE SOURCE:	The Polymer Centre, Lancaster University, Lancaster, LA1 4YQ, UK
SOURCE:	Tetrahedron Letters (2000), 41(35), 6875-6878 CODEN: TELSAY; ISSN: 0040-4039
PUBLISHER:	Elsevier Science Ltd.
DOCUMENT TYPE:	Journal
LANGUAGE:	English

IT 303731-06-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(post synthetic modification of hydrophobic interior of water-sol. dendrimer)

RN 303731-06-8 CAPLUS

CN 3,7,10,14-Tetraazahexadecane-1,16-diaminium, 7,10-bis[3-[(2-[bis[3-[bis(2-hydroxyethyl)amino]-3-oxopropyl](phenylmethyl)ammonio]ethyl]amino]-3-oxopropyl]-N,N,N',N'-tetrakis[3-[bis(2-hydroxyethyl)amino]-3-oxopropyl]-4,13-dioxo-N,N'-bis(phenylmethyl)-, tetrabromide (9CI) (CA INDEX NAME)

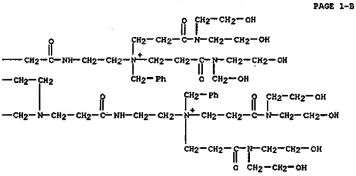
PAGE 1-A



●4 Br⁻

L12 ANSWER 8 OF 29 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)

PAGE 1-B



REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE
FORMAT

L12 ANSWER 9 OF 29 CAPLUS COPYRIGHT 2003 ACS on STN

AB Novel ultrasound methods comprising administering to a patient a targeted vesicle compn. which comprises vesicles comprising a lipid, protein or polymer, encapsulating a gas, in combination with a targeting ligand, and scanning the patient using ultrasound. The scanning may comprise exposing
the patient to a first type of ultrasound energy and then interrogating the patient using a second type of ultrasound energy. The targeting ligand preferably targets tissues, cells or receptors, including myocardial cells, endothelial cells, epithelial cells, tumor cells and the
glycoprotein GPIIbIIIa receptor. The methods may be used to detect a thrombus, enhancement of an old or echo genic thrombus low concns. of vesicles and vesicles targeted to tissues, cells or receptors.

ACCESSION NUMBER:	2000:553450 CAPLUS
DOCUMENT NUMBER:	133:182966
TITLE:	Novel methods of imaging and treatment with targeted compositions
INVENTOR(S):	Ungr, Evan C.; Wu, Yunqiu
PATENT ASSIGNEE(S):	ImaRx Pharmaceutical Corp., USA
SOURCE:	PCT Int. Appl., 211 pp. CODEN: PIXKD2
DOCUMENT TYPE:	Patent
LANGUAGE:	English
FAMILY ACC. NUM. COUNT:	8

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000045856	A2	20000810	WO 2000-US2620	20000202
WO 2000045856	A3	20010215		
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 6521211	B1	20030218	US 1999-243640	19990203
EP 1146911	A2	20011024	EP 2000-914680	20000202
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				

PRIORITY APPLN. INFO.:

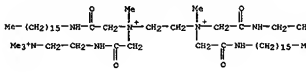
US 1999-243640	A	19990203
US 1995-497684	B2	19950607
US 1996-640464	B2	19960501
US 1996-660032	B2	19960606
US 1998-73913P	P	19980206
US 1998-218660	A2	19981222
WO 2000-US2620	W	20000202

IT 186750-11-8P
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(ultrasound imaging and treatment with targeted compns.)

RN 186750-11-8 CAPLUS

CN 3,12-Diaza-6,9-diazoniatetradecane-1,14-diaminium, 6,9-bis[2-(hexadecylamino)-2-oxoethyl]-N,N,N,N',N',N',6,9-octamethyl-4,11-dioxo-, tetraiodide (9CI) (CA INDEX NAME)

L12 ANSWER 9 OF 29 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)



●4 I⁻

L12 ANSWER 10 OF 29 CAPLUS COPYRIGHT 2003 ACS on STN

AB Polymers are formed in the presence of nucleic acid using template polymn.

Also, polymn. occurs in heterophase systems. These methods can be used for the delivery of nucleic acids, for condensing the nucleic acid, for forming nucleic acid binding polymers, for forming supramol. complexes contg. nucleic acid and polymer, and for forming an interpolyelectrolyte complex. Step polymn. with DNA as a template was performed using N,N'-bis(2-aminoethyl)-1,3-propanediamine and dithiobis(succinimidylpropionate). It was possible to obtain DNA-bound polyamide as a result of the polymn. and the resulting polymer can condense template DNA into compact structures.

ACCESSION NUMBER:	1999:708870 CAPLUS
DOCUMENT NUMBER:	131:327545
TITLE:	Polymer formation in the presence of nucleic acid using template polymerization
INVENTOR(S):	Wolff, Jon A.; Hagstrom, James E.; Budker, Vladimir G.
PATENT ASSIGNEE(S):	Mirus Corporation, USA
SOURCE:	PCT Int. Appl., 73 pp. CODEN: PIXXD2
DOCUMENT TYPE:	Patent
LANGUAGE:	English
FAMILY ACC. NUM. COUNT:	1

PATENT INFORMATION:

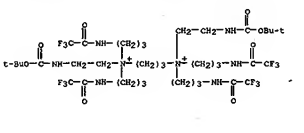
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9955825	A1	19991104	WO 1999-US8965	19990423

W: JP
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE
EP 1073707 A1 20010207 EP 1999-920014 19990423
R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, NL, SE, IE
PRIORITY APPLN. INFO.: US 1998-70299 A 19980430
WO 1999-US8965 W 19990423

IT 210292-26-5P 210292-28-7P 210292-30-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(polymer formation in the presence of nucleic acid using template polymn.)

RN 210292-26-5 CAPLUS
CN 1,3-Propanediaminium, N,N'-bis[2-[[(1,1-dimethylethoxy)carbonyl]amino]ethyl]-N,N,N',N'-tetrakis[3-[(trifluoroacetyl)amino]propyl]-, dibromide (9CI) (CA INDEX NAME)

L12 ANSWER 10 OF 29 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)

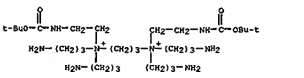


●2 Br⁻

RN 210292-28-7 CAPLUS
CN 1,3-Propanediaminium, N,N,N',N'-tetrakis(3-aminopropyl)-N,N'-bis[2-[[(1,1-dimethylethoxy)carbonyl]amino]ethyl]-, salt with trifluoroacetic acid (1:2) (9CI) (CA INDEX NAME)

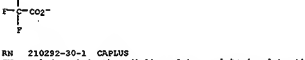
CM 1

CRN 210292-27-6
CMF C29 H66 N8 O4



CM 2

CRN 14477-72-6
CMF C2 F3 O2



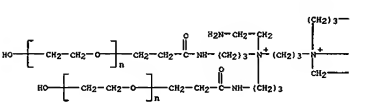
RN 210292-30-1 CAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.,.alpha.',.alpha.'',.alpha.'''-[1,3-propanediylbis[[(2-aminoethyl)nitrilio]bis[3,1-propanediylimino(3-oxo-3,1-propanediyl)]]]tetrakis[.omega.-hydroxy-, salt with trifluoroacetic acid (1:2) (9CI) (CA INDEX NAME)

L12 ANSWER 10 OF 29 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)

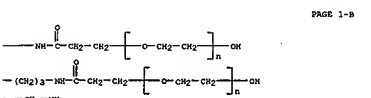
CM 1

CRN 210292-29-8
CMF (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C31 H66 N8 O8
CCI PMS

PAGE 1-A

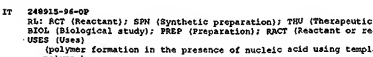


PAGE 1-B



CM 2

CRN 14477-72-6
CMF C2 F3 O2



IT 248915-96-0P
RL: RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(polymer formation in the presence of nucleic acid using template polymn.)

RN 248915-96-0 CAPLUS
CN 1,3-Propanediamine, N,N'-bis(2-aminoethyl)-, polymer with .alpha.,.alpha.',.alpha.'',.alpha.'''-[1,3-propanediylbis[[(2-aminoethyl)nitrilio]bis[3,1-propanediylimino(3-oxo-3,1-propanediyl)]]]tetrakis[.omega.-hydroxypoly(oxy-1,2-ethanediyl)] salt with

L12 ANSWER 10 OF 29 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)
trifluoroacetic acid (1:2) (9CI) (CA INDEX NAME)

CM 1

CRN 4741-99-5
CMF C7 H20 N4

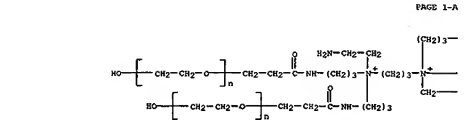
CM 2

CRN 210292-30-1
CMF (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C31 H66 N8 O8 . 2 C2 F3 O2

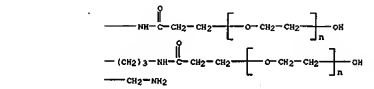
CM 3

CRN 210292-29-8
CMF (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C31 H66 N8 O8
CCI PMS

PAGE 1-A



PAGE 1-B



CM 4

CRN 14477-72-6
CMF C2 F3 O2

L12 ANSWER 10 OF 29 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

L12 ANSWER 11 OF 29 CAPLUS COPYRIGHT 2003 ACS on STN

AB This invention describes novel contrast agents which may be used for diagnostic and therapeutic use. The compns. may comprise a lipid, a protein, polymer and/or surfactant, and a gas, in combination with a targeting ligand. In preferred embodiments, the targeting ligand targets coagula, including emboli and/or thrombi, particularly in patients suffering from an arrhythmic disorder. The contrast media can be used in conjunction with diagnostic imaging, such as ultrasound, as well as therapeutic applications, such as therapeutic ultrasound.

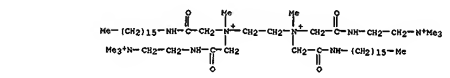
ACCESSION NUMBER: 1999:220014 CAPLUS
DOCUMENT NUMBER: 130:249137
TITLE: Novel targeted ultrasound imaging contrast agents for diagnostic and therapeutic use
INVENTOR(S): Unger, Evan C.; Fritz, Thomas A.; Geritz, Edward W.
PATENT ASSIGNEE(S): ImaRx Pharmaceutical Corp., USA
SOURCE: PCT Int. Appl., 223 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 8
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9913919	A1	19990325	WO 1998-US18858	19980909
W: AU, CA				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 6139819	A	20001031	US 1997-932273	19970917
AU 9893830	A1	19990405	AU 1998-93830	19980909
EP 959908	A1	19991201	EP 1998-946919	19980909
R: DE, FR, GB, IT				

PRIORITY APPLN. INFO.: US 1997-932273 A 19970917
US 1995-497684 B2 19950607
US 1996-640464 B2 19960501
US 1996-660032 B2 19960606
US 1996-666129 A2 19960619
WO 1998-US18858 W 19980909

IT 186750-11-8P 221552-96-1P
RL: SPN (Synthetic preparation); PREP (Preparation)
(novel targeted ultrasound imaging contrast agents for diagnostic and therapeutic use)

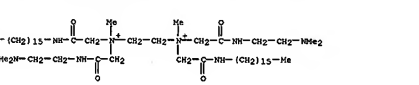
RN 186750-11-8 CAPLUS
CN 3,12-Diaza-6,9-diazoniatetradecane-1,14-diaminium, 6,9-bis[2-(hexadecylamino)-2-oxoethyl]-N,N,N,N',N',N',6,9-octamethyl-4,11-dioxo-, tetraiodide (9CI) (CA INDEX NAME)



●4 I⁻

L12 ANSWER 11 OF 29 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)

RN 221552-96-1 CAPLUS
CN 1,2-Ethanediaminium, N,N'-bis[2-[[2-(dimethylamino)ethyl]amino]-2-oxoethyl]-N,N'-(2-(hexadecylamino)-2-oxoethyl]-N,N'-dimethyl-, diiodide (9CI) (CA INDEX NAME)



●2 I⁻

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

L12 ANSWER 12 OF 29 CAPLUS COPYRIGHT 2003 ACS on STN

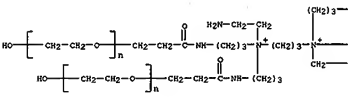
AB The self-assembly of supramol. complexes of nucleic acids and polymers is of relevance to several biol. processes including viral and chromatin formation as well as gene therapy vector design. We now show that template polymn. facilitates condensation of DNA into particles that are <150 nm in diam. Inclusion of a poly(ethylene glycol)-contg. monomer prevents aggregation of these particles. The DNA within the particles remains biol. active and can express foreign genes in cells. The formation or breakage of covalent bonds has until now not been employed to compact DNA into artificial particles.

ACCESSION NUMBER: 1998:648382 CAPLUS
DOCUMENT NUMBER: 130:21826
TITLE: Self-assembly of DNA-polymer complexes using template polymerization
AUTHOR(S): Trubetskoy, Vladimir S.; Budker, Vladimir G.; Hanson, Lisa J.; Slattum, Paul M.; Wolff, Jon A.; Hagstrom, James E.
CORPORATE SOURCE: Mirus Corporation, Madison, WI, 53711, USA
SOURCE: Nucleic Acids Research (1998), 26(18), 4178-4185
CODEN: NARHAD; ISSN: 0305-1048
PUBLISHER: Oxford University Press
DOCUMENT TYPE: Journal
LANGUAGE: English
IT 210292-30-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. of monomers to study self-assembly of DNA-polymer complexes using template polymn.)
RN 210292-30-1 CAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.,.alpha.',.alpha.'',.alpha.'''-[1,3-propanediylbis[[(2-aminoethyl)nitrilio]bis[3,1-propanediylimino(3-oxo-3,1-propanediyl)]]]tetrakis[.omega.-hydroxy-, salt with trifluoroacetic acid (1:2) (9CI) (CA INDEX NAME)

CM 1

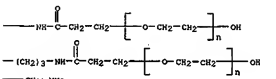
CRN 210292-29-8
CMF (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C31 H66 N8 O8
CCI PMS

PAGE 1-A



L12 ANSWER 12 OF 29 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)

PAGE 1-B



CM 2

CRN 14477-72-6
CMF C2 F3 O2

REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 13 OF 29 CAPLUS COPYRIGHT 2003 ACS on STN

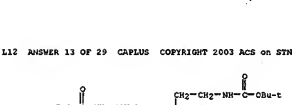
AB A method of making a compd. for delivery to a cell comprising forming a polymer in the presence of a biol. active drug is disclosed.. A method of forming polymers in the presence of nucleic acid using template polymn. and of having the polymn. occur in heterophase systems is further disclosed. These methods can be used for the delivery of nucleic acids, for condensing the nucleic acid, for forming nucleic acid-binding polymers, for forming supramol. complexes contg. nucleic acid and polymer, and for forming an interpolyelectrolyte complex. The nuclear localizing peptide of SV40 T antigen was copolymd. with dithiobis[succinimidylpropionate] in the presence of plasmid DNA and this process enabled the formation of complexes that expressed luciferase after transfection into 3T3 cells in culture.

ACCESSION NUMBER: 1998:485169 CAPLUS
DOCUMENT NUMBER: 129:118754
TITLE: Method for making a compound for delivery to cells by forming a polymer in the presence of a template drug, especially nucleic acid
INVENTOR(S): Wolff, Jon A.; Hagstrom, James E.; Budker, Vladimir G.; Trubetskoy, Vladimer S.; Slattum, Paul M.; Hanson, Lisa J.
PATENT ASSIGNEE(S): Mirus Corp., USA
SOURCE: PCT Int. Appl., 79 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 6
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9829541	A1	19980709	WO 1997-US24089	19971230
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 6126964	A	20001003	US 1997-778657	19970103
EP 938356	A1	19991124	EP 1997-954803	19971230
R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, NL, SE, IE				
US 2002061287	A1	20020523	US 2001-4763	20011205
US 2002085989	A1	20020704	US 2001-5294	20011205
PRIORITY APPLN. INFO.:			US 1997-778657 A	19970103
			US 1996-9593P P	19960104
			WO 1997-US24089 W	19971230
			US 1999-464871 A3	19991216

OTHER SOURCE(S): MARPAT 129:118754
IT 210292-26-8P 210292-28-7P 210292-30-1P
RL: SPN (Synthetic preparation); PREP (Preparation)
(method for making compd. for delivery to cells by forming polymer in presence of template drug, esp. nucleic acid)
RN 210292-26-5 CAPLUS
CN 1,3-Propanediaminium, N,N'-bis[2-[[(1,1-dimethylethoxy)carbonyl]amino]ethyl]-N,N,N',N'-tetrakis[3-[(trifluoroacetyl)amino]propyl]-, dibromide (9CI) (CA INDEX NAME)

L12 ANSWER 13 OF 29 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)

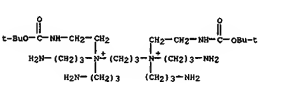


●2 Br⁻

RN 210292-28-7 CAPLUS
CN 1,3-Propanediaminium, N,N,N',N'-tetrakis(3-aminopropyl)-N,N'-bis[2-[[(1,1-dimethylethoxy)carbonyl]amino]ethyl]-, salt with trifluoroacetic acid (1:2) (9CI) (CA INDEX NAME)

CM 1

CRN 210292-27-6
CMF C29 H66 N8 O4



CM 2

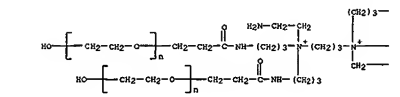
CRN 14477-72-6
CMF C2 F3 O2

RN 210292-30-1 CAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.,.alpha.',.alpha.'',.alpha.'''-[1,3-propanediylbis[[(2-aminoethyl)nitrilio]bis[3,1-propanediylimino(3-oxo-3,1-propanediyl)]]]tetrakis[.omega.-hydroxy-, salt with trifluoroacetic acid (1:2) (9CI) (CA INDEX NAME)

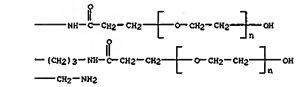
L12 ANSWER 13 OF 29 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)
CM 1

CRN 210292-29-8
CMF (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C31 H66 N8 O8
CCI PMS

PAGE 1-A



PAGE 1-B

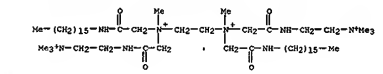


CM 2

CRN 14477-72-6
CMF C2 F3 O2

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 14 OF 29 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)



●4 I⁻

L12 ANSWER 14 OF 29 CAPLUS COPYRIGHT 2003 ACS on STN
AB Novel targeted compns. which may be used for diagnostic and therapeutic use. The compns. may comprise a lipid, a protein or a polymer and a gas, in combination with a targeting ligand. The targeting ligand targets tissues, cells or receptors, including myocardial cells, endothelial cells, epithelial cells, tumor cells and the glycoprotein GPIIbIIIa receptor. The contrast media can be used in conjunction with diagnostic imaging, such as ultrasound, as well as therapeutic applications, such as therapeutic ultrasound. One example gave the prepn. of N,N'-bis(hexadecylaminocarbonylmethylene)-(.beta.-N,N,N-trimethylammonium ethylaminocarbonylmethylene)-N,N'-dimethyl-N,N'-ethylenediamine tetraiodide.

ACCESSION NUMBER: 1997:151526 CAPLUS
DOCUMENT NUMBER: 126:162273
TITLE: Novel targeted compositions for diagnostic and therapeutic use
INVENTOR(S): Unger, Evan C.; Shen, Dekang; Wu, Guanli
PATENT ASSIGNEE(S): ImaRx Pharmaceutical Corp., USA; Unger, Evan C.; Shen, Dekang; Wu, Guanli
SOURCE: PCT Int. Appl., 194 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 8
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9640285	A1	19961219	WO 1996-US9938	19960606
W: AU, CA, CN, JP, US				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
CA 2218541	AA	19961219	CA 1996-2218541	19960606
AU 9662703	A1	19961230	AU 1996-62703	19960606
AU 709562	B2	19990902		
EP 831932	A1	19980401	EP 1996-921486	19960606
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
CN 1187137	A	19980708	CN 1996-194499	19960606
CN 1083280	B	20020424		
JP 11507638	T2	19990706	JP 1996-502099	19960606
CN 1397348	A	20030219	CN 2002-105309	20020222

PRIORITY APPLN. INFO.: US 1995-497684 A 19950607
US 1996-640464 A 19960501
WO 1996-US9938 W 19960606

IT 186750-11-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(targeted compns. for diagnostic and therapeutic use)
RN 186750-11-8 CAPLUS
CN 3,12-Diaza-6,9-diazoniatetradecane-1,14-diaminium, 6,9-bis[2-(hexadecylamino)-2-oxoethyl]-N,N,N,N',N',N',6,9-octamethyl-4,11-dioxo-, tetraiodide (9CI) (CA INDEX NAME)

L12 ANSWER 15 OF 29 CAPLUS COPYRIGHT 2003 ACS on STN
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Cationic lipid compds. (I; x, y, z = 0-100; X1 = O, S, (substituted) NH, etc.; Y1, Y3 = a phosphate residue, N(R5)a, S(R5)a (wherein a = 1-3; R5 = alkyl, etc.), etc.; Y2 = N(R5)b, S(R5)b, P(R5)b (wherein b = 0-2); R1-R4 = C1-20 alkylene] which comprise at least two cationic groups, were prepd. Thus, reaction of C12H25NH2 with EDTA dianhydride in MeOH followed by amidation of the intermediate II with Me2N(CH2)2NH2 in the presence of DCC in CHCl3 and treatment of the amide III with MeI in EtOH afforded the cationic product IV.4I-. Cationic lipid formulations contg. compds. I were given.

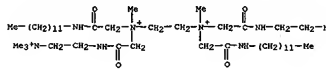
ACCESSION NUMBER: 1996:623187 CAPLUS
DOCUMENT NUMBER: 125:247223
TITLE: Preparation of novel cationic lipids as carriers in the intracellular delivery of bioactive agents
INVENTOR(S): Unger, Evan C.; Shen, Dekang; Wu, Guanli
PATENT ASSIGNEE(S): Imar Pharmaceutical Corp., USA
SOURCE: PCT Int. Appl., 133 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9626179	A1	19960829	WO 1996-US1474	19960129
W: AU, CA, CN, JP				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 5830430	A	19981103	US 1995-391938	19950221
CA 2213417	AA	19960829	CA 1996-2213417	19960129
AU 9649138	A1	19960911	AU 1996-49138	19960129
CN 1177342	A	19980325	CN 1996-192058	19960129
CN 1082043	B	20020403		
EP 839125	A1	19980506	EP 1996-905351	19960129
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE				
JP 11500727	T2	19990119	JP 1996-525700	19960129
US 6056938	A	20000502	US 1998-73181	19980505

PRIORITY APPLN. INFO.: US 1995-391938 A 19950221
WO 1996-US1474 W 19960129

OTHER SOURCE(S): MARPAT 125:247223
IT 182183-33-3P 182183-34-4P 182183-36-6P
RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of novel cationic lipids as carriers in the intracellular delivery of bioactive agents)
RN 182183-33-3 CAPLUS
CN 3,12-Diaza-6,9-diazoniatetradecane-1,14-diaminium, 6,9-bis[2-(dodecylamino)-2-oxoethyl]-N,N,N,N',N',N',6,9-octamethyl-4,11-dioxo-, tetraiodide (9CI) (CA INDEX NAME)

L12 ANSWER 15 OF 29 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)



●4 I⁻

RN 182183-34-2 CAPLUS
CN 3,15-Diaza-6,9,12-triazoniaheptadecane-1,17-diaminium, 6,12-bis[2-(hexadecylamino)-2-oxoethyl]-N,N,N,N',N',N',6,9,12-nonamethyl-4,14-dioxo-9-[2-oxo-2-[[2-(trimethylammonio)ethyl]amino]ethyl]-, hexaiodide (9CI) (CA INDEX NAME)

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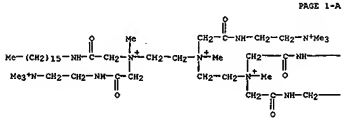

●6 I⁻

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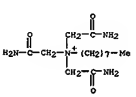
L12 ANSWER 16 OF 29 CAPLUS COPYRIGHT 2003 ACS on STN
AB RN(CH2CO2A)CH2CO2B and RN+(CH2CO2A)(CH2CO2B)(CH2)nY X- (R = C8-18 alkyl; A, B = OH, OR1, NH2; Y = CO2H, CO2R1, CONH2, CONHR2, alkyl, aryl; R1 = C1-4 alkyl; R2 = undefined; X = Cl, Br, iodo; n = 1,2) were prepd. Thus, dodecylamine, chloroacetamide, and Na2CO3 were refluxed in EtOH to give 75% Me(CH2)11N(CH2CONH2)2. This was refluxed with chloroacetic acid in pr2OH to give 77% quaternary salt.

ACCESSION NUMBER:	1996:106392 CAPLUS
DOCUMENT NUMBER:	120:106392
TITLE:	Alkyliminodiacetic acid derivatives and processes for the preparation thereof
INVENTOR(S):	Sarina, Gzimbesg; Zvi, Pelah; Eleonora, Shaubi; Joseph, Latti; Saul, Zolotov
PATENT ASSIGNEE(S):	Dead Sea Works Ltd., Israel
SOURCE:	Israeli, 15 pp. CODEN: ISXKAQ
DOCUMENT TYPE:	Patent
LANGUAGE:	English
FAMILY ACC. NUM. COUNT:	1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
IL 86732	A1	19921201	IL 1988-86732	19880614
PRIORITY APPLN. INFO.:			IL 1988-86732	19880614

OTHER SOURCE(S): MARPAT 120:106392
IT 152587-11-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 152587-11-6 CAPLUS
CN 1-Octanaminium, N,N,N-tris(2-amino-2-oxoethyl)-, chloride (9CI) (CA INDEX NAME)



● Cl⁻

L12 ANSWER 15 OF 29 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)

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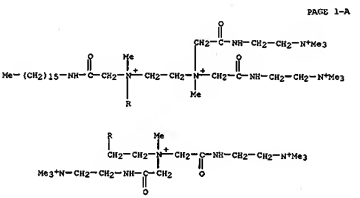

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●7 I⁻

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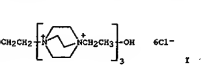

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AB New categories of cascade mols. have been synthesized in four general structural categories (balloons, stars, strings and combs), e.g. MeN+[CH2CH2N+(CH2CH2OH)3]3]3 13Cl- and I in which the core and branching points are ammonium ion sites.

ACCESSION NUMBER:	1992:531154 CAPLUS
DOCUMENT NUMBER:	117:131154
TITLE:	Ammonium cascade molecules
AUTHOR(S):	Rengan, Kasthuri; Engel, Robert
CORPORATE SOURCE:	Queens Coll., City Univ. New York, Flushing, NY, 11367, USA
SOURCE:	Journal of the Chemical Society, Chemical Communications (1992), (10), 757-8 CODEN: JCCCAT; ISSN: 0022-4936
DOCUMENT TYPE:	Journal
LANGUAGE:	English

IT 143245-85-6P 143245-86-7P 143245-87-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and cascade quaternization of, with triethanolamine)
RN 143245-85-6 CAPLUS
CN 1,2-Ethanediaminium, N-methyl-N',N',N'-tris[2-[[(4-methylphenyl)sulfonyl]oxy]ethyl]-N,N-bis[2-[tris[2-[[(4-methylphenyl)sulfonyl]oxy]ethyl]ammonio]ethyl]- (9CI) (CA INDEX NAME)

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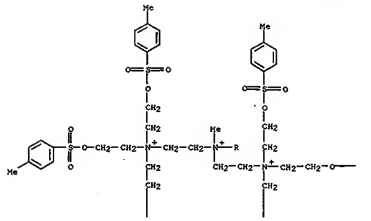

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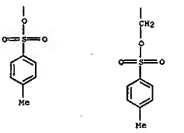

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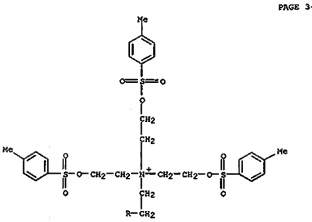

RN 143245-86-7 CAPLUS
CN 1,2-Ethanediaminium, N,N,N-tris[2-[[(4-methylphenyl)sulfonyl]oxy]ethyl]-N',N'-bis[2-[tris[2-[[(4-methylphenyl)sulfonyl]oxy]ethyl]ammonio]ethyl]-N'-(phenylmethyl)- (9CI) (CA INDEX NAME)

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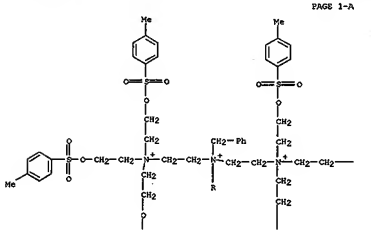

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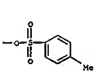

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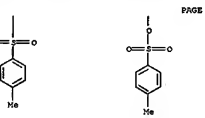

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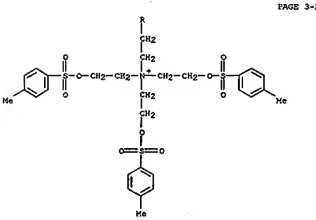

RN 143245-87-8 CAPLUS
CN 1,2-Ethanediaminium, N,N,N-tris[2-[[(4-methylphenyl)sulfonyl]oxy]ethyl]-N',N',N'-tris[2-[tris[2-[[(4-methylphenyl)sulfonyl]oxy]ethyl]amino]ethyl]- (9CI) (CA INDEX NAME)

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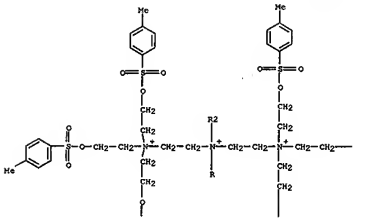

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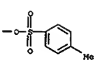

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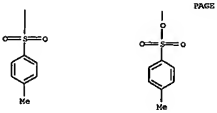

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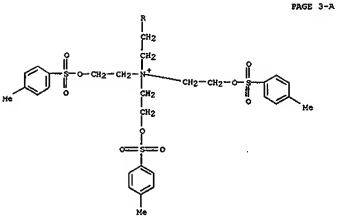

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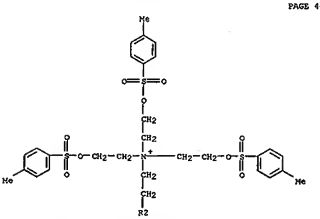
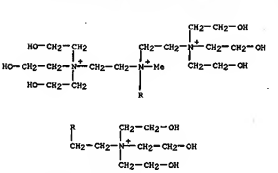
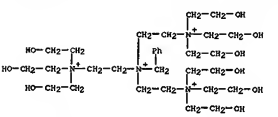


IT 143245-82-3P 143245-83-4P 143245-84-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and tosylation of)
RN 143245-82-3 CAPLUS
CN 1,2-Ethanediaminium, N,N-bis[2-[tris(2-hydroxyethyl)ammonio]ethyl]-N',N',N'-tris(2-hydroxyethyl)-N-methyl- (9CI) (CA INDEX NAME)



RN 143245-83-4 CAPLUS
CN 1,2-Ethanediaminium, N,N-bis[2-[tris(2-hydroxyethyl)ammonio]ethyl]-N',N',N'-tris(2-hydroxyethyl)-N-(phenylmethyl)- (9CI) (CA INDEX NAME)



RN 143245-84-5 CAPLUS
CN 1,2-Ethanediaminium, N,N,N-tris(2-hydroxyethyl)-N',N',N'-tris[2-[tris(2-hydroxyethyl)ammonio]ethyl]- (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
IT 143245-86-7P 143245-87-8P 143301-96-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 143245-56-1 CAPLUS
CN 1,2-Ethanediaminium, N-methyl-N',N',N'-tris[2-[tris(2-hydroxyethyl)ammonio]ethyl]-N,N-bis[2-[tris[2-[tris(2-hydroxyethyl)ammonio]ethyl]ammonio]ethyl]-, tridecachloride (9CI) (CA INDEX NAME)

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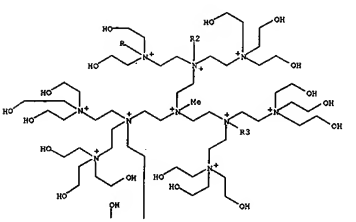

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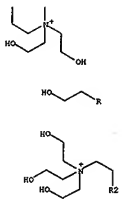

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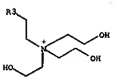

●13 Cl⁻

RN 143245-57-2 CAPLUS
CN 1,2-Ethanediaminium, N,N,N-tris[2-[tris(2-hydroxyethyl)ammonio]ethyl]-N',N',N'-tris[2-[tris(2-[tris(2-hydroxyethyl)ammonio]ethyl]ammonio]ethyl]-, heptadecachloride (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 143301-96-6 CAPLUS
CN 1,2-Ethanediaminium, N-(phenylmethyl)-N',N',N'-tris[2-[tris(2-hydroxyethyl)ammonio]ethyl]-N,N-bis[2-[tris[2-[tris(2-hydroxyethyl)ammonio]ethyl]ammonio]ethyl]-, tridecachloride (9CI) (CA INDEX NAME)

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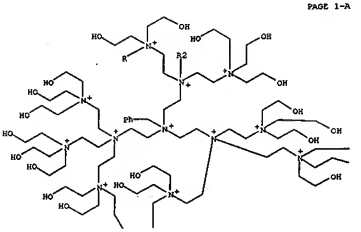

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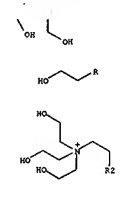
PAGE 2-A



●13 Cl⁻

L12 ANSWER 18 OF 29 CAPLUS COPYRIGHT 2003 ACS on STN

AB A mixt. contg. natural rubber latexes and the amphoteric bactericides R1R2NCH2CO2H (R1 = R(NHCH2CH2)n; R2 = RNHCH2CH2, H; R = C8-18 alkyl; n = 1-3) is made into a slow-release bactericide-contg. surgical material by the immersion molding method. As an example, a compn. contg. 60% acidic natural rubber latex soln. (pH 2.8) 100, zinc dimethyldithiocarbamate 0.4, S 1, ZnO 2.5, and stearic acid 1 part was mixed with 6 parts dodecyldi(aminoethyl)glycine-HCl, 4 parts tetradecyldi(aminoethyl)glycine-HCl, and 10 parts 10% alkylpolyaminoethyl glycine in H2O, and made into a catheter for urinary catheterization by the immersion molding method. The catheter was bacteria-resistant.

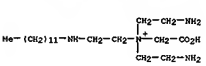
ACCESSION NUMBER: 1986:597229 CAPLUS
DOCUMENT NUMBER: 105:197229
TITLE: Manufacture of sugical goods containing slow-release antimicrobial agents
INVENTOR(S): Mochizuki, Masatsugu; Umemura, Yoshihiro; Ozaki, Yasuhiko
PATENT ASSIGNEE(S): Unitika Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 61146265	A2	19860703	JP 1984-269132	19841219
JP 04034414	B4	19920605		

PRIORITY APPLN. INFO.: JP 1984-269132 19841219

IT 105210-67-1
RL: BIOL (Biological study)
(urinary catheters prepn. from compns. contg. natural rubber latexes and)

RN 105210-67-1 CAPLUS
CN Ethanaminium, N,N-bis(2-aminoethyl)-N-(carboxymethyl)-2-(dodecylamino)-, chloride (9CI) (CA INDEX NAME)



● Cl⁻

L12 ANSWER 19 OF 29 CAPLUS COPYRIGHT 2003 ACS on STN
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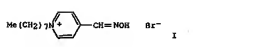
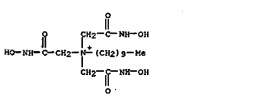


I

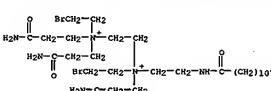
AB Several surface active oximes were evaluated under very mild conditions as
to their ability to decontaminate chem. warfare (CW) agents, with N-octylpyridinium 4-aldoxime bromide (I) (81593-18-2) fulfilling the requirements very well. The half-life time of DFP (55-91-4) and VX (50782-69-9) were reduced by 5% I to 2.1 and 8.6 min at 20.degree., resp. Protective ointments contg. polyethylene glycol and 5-10% I were able to protect guinea pigs against high amts. of applied VX. The amt. of the VX could be raised to 50 times the LD50. The animals showed no toxic effect during the application period of 2 h of high amts. of VX and after removal
of ointment together with VX.

ACCESSION NUMBER: 1983:607530 CAPLUS
DOCUMENT NUMBER: 99:207530
TITLE: Surface active oximes for decontamination of CW-agents
especially nerve gases
AUTHOR(S): Rossmann, Klaus
CORPORATE SOURCE: Battelle-Inst. e.V., Frankfurt, D-6000, Fed. Rep. Ger.
SOURCE: FOA Rep. (1983), C 40171-C2,C3, Proc. Int. Symp. Prot.
Against Chem. Warf. Agents, 233-7
CODEN: FOARA2; ISSN: 0586-1470
DOCUMENT TYPE: Report
LANGUAGE: English
IT 87857-10-1
RL: BIOL (Biological study)
(decontamination of nerve gases by)
RN 87857-10-1 CAPLUS
CN 1-Decanaminium, N,N,N-tris[2-(hydroxyamino)-2-oxoethyl]-, chloride (9CI) (CA INDEX NAME)



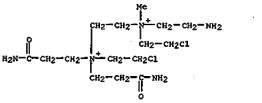
● Cl⁻

L12 ANSWER 20 OF 29 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)



● 2 Br⁻

RN 87683-94-1 CAPLUS
CN 1,2-Ethanediaminium, N-(2-aminoethyl)-N',N'-bis(3-amino-3-oxopropyl)-N,N'-bis(2-chloroethyl)-N-methyl-, dichloride (9CI) (CA INDEX NAME)



● 2 Cl⁻

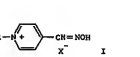
L12 ANSWER 20 OF 29 CAPLUS COPYRIGHT 2003 ACS on STN
AB Oil- or water-sol. R1CONH(CH2)mZN+R2R3R4 X- [R1 = C5-22 alkyl; R2, R3 = C12-18 alkyl, (CH2)pCONH2, (CH2)qOH, (CH2CH2O)x+yH, (CH2)2 CONHCH2OH, or CH2CHMeCONH2; R4 = (CH2)nX; Z = direct bond, [CHZNR5(CH2)2]m, [(CH2)NR5(CH2)3]m; R5 = Et, Me, (CH2)2CONH2, CH2CHMeCONH2, or (CH2)2CONHCH2OH; X = Cl, Br, I; m = 1-6, p = 2-6, q = 1, 2, X + y = 2-10, n = 2-12] surfactants, useful as antistatic agents, are manuf. by quaternization of the corresponding alkanamidoalkylamines with dihalo alkanes in polar solvents at 80-100.degree./1-2 atm under an inert gas in the presence of strongly basic catalysts. Thus, a 1:1.4 (mol. ratio) lauric acid [143-07-7]-diethylenetriamine (111-40-0) mixt. in 150 parts PhMe was refluxed 2 h while the water bi-product was distd. and then reacted an addnl. 4 h to give N-(2-undecanamidoethyl)ethylenediamine (I) (45244-49-3). Acrylamide (79-06-1) (145 parts) was reacted with 275 parts I contg. 10-15% PhMe in the presence of 1% NaOMe 4 h at 80-95.degree., and the reaction mixt. was further reacted with 2 mols HCO2H and 2 mols HCHO (50-00-0) (47% soln.) for 4 h in the presence of 15% EtOH to give C11H23CONH(CH2)2NMe(CH2)2N[(CH2)2CONH2]2 (II) (87683-95-2). A 1:4 (mol ratio) II-1,2-dichloroethane (107-06-2) mixt. was heated 5 h at 80.degree. in the presence of 1% NaOH to give water-sol.
C11H23CONH(CH2)2NMe+(CH2)2Cl](CH2)2N[(CH2)2Cl](CH2)2CONH2]22+ 2 Cl- (87683-94-1), which imparted antistatic properties and good hand to textiles.

ACCESSION NUMBER: 1983:577868 CAPLUS
DOCUMENT NUMBER: 99:177868
TITLE: Quaternary alkanamidoalkylammonium salts
INVENTOR(S): Cretu, Stelian; Avram, Radu; Tomescu, Margareta; Tepes, Gheorghe
PATENT ASSIGNEE(S): Combinatul de Fire si Fibre Sintetice, Savineati, Rom.
SOURCE: Rom., 4 pp.
CODEN: RUXXA3
DOCUMENT TYPE: Patent
LANGUAGE: Romanian
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
RO 78017	B	19820201	RO 1979-99411	19791201
PRIORITY APPLN. INFO.:			RO 1979-99411	19791201

IT 87683-89-4P 87683-94-1P
RL: TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(surfactants, manuf. of)
RN 87683-89-4 CAPLUS
CN 1,2-Ethanediaminium, N,N,N'-tris(3-amino-3-oxopropyl)-N,N'-bis(2-bromoethyl)-N,N'-[2-[(1-oxododecyl)amino]ethyl]-, dibromide (9CI) (CA INDEX NAME)

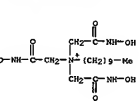
L12 ANSWER 21 OF 29 CAPLUS COPYRIGHT 2003 ACS on STN
GI



I

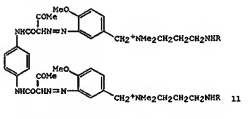
AB N-Substituted hydroxylamine derivs., e.g., I (R = C6H13, C4F9CH2CH2, C8H17, C12H25, C16H33; X = Br, iodide), RCHC1CONHOH (R = Et, C7H15), p-H2NC6H4SO2NHOH, etc., were synthesized as a potential substitute for calcium hypochlorite. Like calcium hypochlorite, these compds. are highly
P(V)-nucleophilic with respect to toxic phosphorus esters. Incorporating surface-active structural elements into the compds. can enhance their reactivity to phosphorus esters on the one hand (micelle catalysis); on the other hand aq. solns. of these compds. wet polymer surfaces easily, thus ensuring that they can be well applied. The effectiveness of the compds. in the detoxification of phosphorus esters was exand. using diisopropyl fluorophosphate as a model substance.

ACCESSION NUMBER: 1982:198656 CAPLUS
DOCUMENT NUMBER: 96:198656
TITLE: Nucleophilic substances for detoxification of phosphorus esters
AUTHOR(S): Reiner, Roland; Rossmann, Klaus
CORPORATE SOURCE: Battelle-Inst. e.V., Frankfurt/Main, D-6000, Fed. Rep.
Ger.
SOURCE: Monatshefte fuer Chemie (1982), 113(2), 223-31
CODEN: MOCHB7; ISSN: 0026-9247
DOCUMENT TYPE: Journal
LANGUAGE: German
IT 81593-23-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(detoxification of diisopropyl fluorophosphate by)
RN 81593-23-9 CAPLUS
CN 1-Decanaminium, N,N,N-tris[2-(hydroxyamino)-2-oxoethyl]-, bromide (9CI) (CA INDEX NAME)



● Br⁻

L12 ANSWER 22 OF 29 CAPLUS COPYRIGHT 2003 ACS on STN
GI



AB A large no. of mono- and disazo dyes contg. quaternary ammonium groups, e.g. (aminoalkyl)ammonio, [(acylamino)alkyl]ammonio, and (ammonioalkyl)amino, were prepd. Many of these dyes showed good bleed resistance when used as paper dyes and were readily bleachable by hypochlorite. Thus, 3,4-H2N(MeO)C6H3CH2NHMe2CH2CH2CH2NCHO (I) [38901-93-8] was diazotized and coupled with p-C6H4(NHCOCH2CCMe)2 [24731-73-5] to give II (R = CHO) [38901-94-9], a water-sol. yellow dye which bled only slightly in the water- and soap-bleed tests on paper and also was easily bleached after being applied to paper. Its hydrolysis product, II (R = H) [38901-95-0], showed essentially the same bleachability but had superior bleed resistance. The prepn. of II and many similar cationic arom. amino compds. is described.

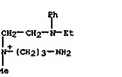
ACCESSION NUMBER: 1979:105604 CAPLUS
DOCUMENT NUMBER: 90:105604
TITLE: Water-soluble quaternary ammonium nonheterocyclic azo dyes
INVENTOR(S): Jafferies, Patrick J.; Crounse, Nathan N.
PATENT ASSIGNEE(S): Sterling Drug Inc., USA
SOURCE: U.S., 83 pp. Cont.-in-part of U.S. 3,935,182. CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 9
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4103092	A	19780725	US 1975-595864	19750714
US 3709903	A	19730109	US 1970-51676	19700701
US 3839426	A	19741001	US 1970-51690	19700701
GB 1333837	A	19731017	GB 1971-29451	19710622
CA 940528	A1	19740122	CA 1971-116474	19710623
US 3784599	A	19740108	US 1971-201153	19711122
US 3935182	A	19760127	US 1973-332511	19730214
CA 940121	A2	19740115	CA 1973-163853	19730216
US 3996282	A	19761207	US 1974-486180	19740705
US 4065560	A	19771227	US 1976-672428	19760331
US 4146658	A	19790327	US 1977-839975	19771006
US 4206144	A	19800603	US 1978-963031	19781122
PRIORITY APPLN. INFO.:			US 1966-551868	19660523
			US 1968-777884	19681121

L12 ANSWER 22 OF 29 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)

	US 1970-51676	19700701
	US 1970-51690	19700701
	US 1971-201153	19711122
	US 1973-332511	19730214
	US 1974-486180	19740705
	US 1966-551868	19660304
	CA 1969-65436	19691021
	US 1970-51673	19700701
	US 1975-595864	19750714
	US 1976-672428	19760331
	US 1976-672482	19760331
	US 1977-839975	19771006

IT 68837-99-0
RL: RCT (Reactant); RACT (Reactant or reagent)
(coupling of, with tetrazotized bis[aminochlorophenyl] disulfide)
RN 68837-99-0 CAPLUS
CN 1-Propanaminium, 3-amino-N-(3-aminopropyl)-N-[2-(ethylphenylamino)ethyl]-N-methyl-, chloride (9CI) (CA INDEX NAME)



● Cl⁻

RL: RCT (Reactant); RACT (Reactant or reagent)
(coupling of, with tetrazotized o-tolidine
IT 66755-02-0P 66755-07-5P 68838-00-6P 68849-72-9P
RL: IMF (Industrial manufacture); PREP (Preparation)
(prepn. of)
RN 66755-02-0 CAPLUS
CN 1-Propanaminium, N,N'-[(3,3'-dichloro[1,1'-biphenyl]-4,4'-diyl)bis[azo-4,1-phenylene(ethylimino)-2,1-ethanediyl]]bis[3-amino-N-(3-aminopropyl)-N-methyl-, dichloride (9CI) (CA INDEX NAME)

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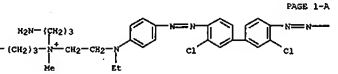
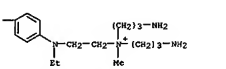


●2 Cl⁻

L12 ANSWER 22 OF 29 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)

PAGE 1-B



RN 66755-07-5 CAPLUS
CN 1-Propanaminium, N,N'-[dithiobis[4,1-phenyleneazo-4,1-phenylene(ethylimino)-2,1-ethanediyl]]bis[N,N-bis[3-aminopropyl)-N-methyl-, dichloride (9CI) (CA INDEX NAME)

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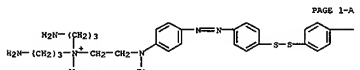

●2 Cl⁻

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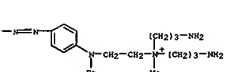

RN 68838-00-6 CAPLUS
CN 1-Propanaminium, N,N'-(dithiobis[(3-chloro-4,1-phenylene)azo-4,1-phenylene(ethylimino)-2,1-ethanediyl]]bis[3-amino-N-(3-aminopropyl)-N-methyl-, dichloride (9CI) (CA INDEX NAME)

L12 ANSWER 22 OF 29 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)

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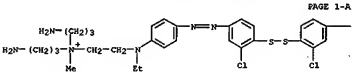
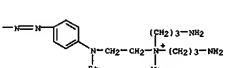


●2 Cl⁻

PAGE 1-B



RN 68849-72-9 CAPLUS
CN 1-Propanaminium, N,N'-[(3,3'-dimethyl[1,1'-biphenyl]-4,4'-diyl)bis[azo-4,1-phenylene(ethylimino)-2,1-ethanediyl]]bis[3-amino-N-(3-aminopropyl)-N-methyl-, chloride (9CI) (CA INDEX NAME)

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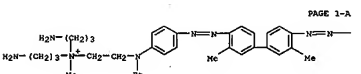
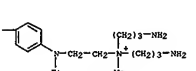


● Cl⁻

PAGE 1-B



* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Approx. 100 cationic water-sol. azo and disazo dyes for paper were prepd. which had good bleachability and good bleed-fastness properties. The dyes were prepd. by conventional azo coupling techniques and the prepn. of intermediates was extensively described. Representative of the dyes prepd. are: I (R = Rl) [38901-94-9], II [40948-99-0], and III [66755-16-6].

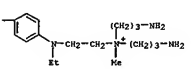
ACCESSION NUMBER: 1978:512303 CAPLUS
DOCUMENT NUMBER: 89:112303
TITLE: Water-soluble quaternary ammonium dyes
INVENTOR(S): Jefferies, Patrick J.; Crounse, Nathan N.
PATENT ASSIGNEE(S): Sterling Drug Inc., USA
SOURCE: U.S., 77 pp. Continuation-in-part of U.S. 3,839,426.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 9
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3960282	A	19761207	US 1974-486180	19740705
US 3709903	A	19730109	US 1970-51676	19700701
US 3839426	A	19741001	US 1970-51690	19700701
GB 1333837	A	19731017	GB 1971-29451	19710622
CA 940028	A1	19740122	CA 1971-116474	19710623
US 3784599	A	19740108	US 1971-201153	19711122
US 3935182	A	19760127	US 1973-332511	19730214
CA 940121	A2	19740115	CA 1973-163853	19730216
US 4103092	A	19780725	US 1975-595864	19750714
US 4065500	A	19771227	US 1976-672428	19760331
US 4146558	A	19790327	US 1977-839975	19771006
US 4206144	A	19800603	US 1978-963031	19781122

PRIORITY APPLN. INFO.: US 1966-551868 19660523
US 1968-777884 19681121
US 1970-51676 19700701
US 1970-51690 19700701
US 1971-201153 19711122
US 1973-332511 19730214
US 1966-551868 19660304
CA 1969-65436 19691021
US 1970-51673 19700701
US 1974-486180 19740705
US 1975-595864 19750714
US 1976-672428 19760331
US 1976-672482 19760331
US 1977-839975 19771006

IT 66755-07-5P
RL: IMF (Industrial manufacture); PREP (Preparation)
(dye, prepn. of)
RN 66755-07-5 CAPLUS
CN 1-Propanaminium, N,N'-[dithiobis[4,1-phenyleneazo-4,1-phenylene(ethylimino-2,1-ethanediyl)]bis[N,N-bis(3-aminopropyl)-N-methyl-

PAGE 1-B



RN 66755-03-1 CAPLUS
CN 1-Propanaminium, N,N'-[(3,3'-dimethyl(1,1'-biphenyl)-4,4'-diyl)bis[azo-4,1-phenylene(ethylimino)-2,1-ethanediyl]]bis[3-amino-N-(3-aminopropyl)-N-methyl-, dichloride (9CI) (CA INDEX NAME)

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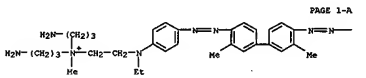
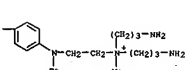


●2 Cl⁻

PAGE 1-B



IT 66754-66-3P
RL: IMF (Industrial manufacture); PREP (Preparation)
(prepn. of)
RN 66754-66-3 CAPLUS
CN 1-Propanaminium, N-[2-(ethylphenylamino)ethyl]-3-(formylamino)-N-[3-(formylamino)propyl]-N-methyl-, chloride (9CI) (CA INDEX NAME)

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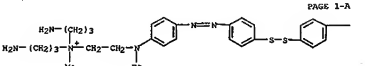
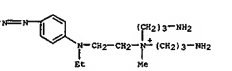


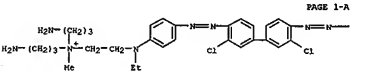
●2 Cl⁻

PAGE 1-B

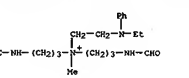


IT 66755-02-0P 66755-03-1P
RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation)
(prepn. and spectrum of)
RN 66755-02-0 CAPLUS
CN 1-Propanaminium, N,N'-[(3,3'-dichloro[1,1'-biphenyl]-4,4'-diyl)bis[azo-4,1-phenylene(ethylimino)-2,1-ethanediyl]]bis[3-amino-N-(3-aminopropyl)-N-methyl-, dichloride (9CI) (CA INDEX NAME)

PAGE 1-A



●2 Cl⁻



● Cl⁻

L12 ANSWER 24 OF 29 CAPLUS COPYRIGHT 2003 ACS on STN

AB Carboxamide-contg. quaternary ammonium polymers were prepd. by treating tetrasubstituted diamines from ethylenediamines and acrylamide (I) [79-06-1] or acrylamide-contg. compds. with 1,4-dibromobutane (II). The polymers were useful as electroconducting coatings for paper, as strengthening agents for paper, and as corrosion inhibitors. Thus, 3,3',3'',3'''-(ethylenedinitrilo)tetrapropionamide [III] [4097-84-1], prepd. via Michael addn. reaction of NH2CH2CH2NH2 [107-15-3] with I, was refluxed with II at 95-100.degree. for 136 hr to give II-III quaternary copolymer (III) [57350-68-2]. Paper coated with III had a surface resistance >1015 ohm (at 13% relative humidity) at coating wt. 0.726 kg/279 m2. III was also used as wet and dry strengthening agents for paper. The rate of corrosion of a metal electrode in an air and H2O environment was 59 mg/cm2/day in the presence of 100 ppm III, in comparison to 90-5 mg/cm2/day in the absence of III.

ACCESSION NUMBER: 1975:696793 CAPLUS
DOCUMENT NUMBER: 83:206793
TITLE: Functional ionic polyelectrolyte compositions
INVENTOR(S): Schaper, Raymond J.
PATENT ASSIGNEE(S): Cagon Corp., USA
SOURCE: Ger. Offen., 45 pp.
CODEN: OWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2502914	A1	19750731	DE 1975-2502914	19750124
DK 7406596	A	19750929	DK 1974-6596	19741218
SE 7500161	A	19750925	SE 1975-161	19750108
NL 7500325	A	19750729	NL 1975-325	19750110
CA 1057892	A1	19790703	CA 1975-217890	19750114
GB 1479786	A	19770713	GB 1975-2449	19750120
FR 2320330	A1	19770304	FR 1975-1915	19750122
FR 2320330	B1	19780810		
CH 600039	A	19780615	CH 1975-864	19750124
JP 50107100	A2	19750823	JP 1975-10174	19750125
US 4166894	A	19790904	US 1977-852406	19771117
PRIORITY APPLN. INFO.:			US 1974-436419	19740125
			US 1976-676777	19760414

IT 57344-11-3P 57344-13-5P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and uses of)

RN 57344-11-3 CAPLUS
CN Poly[[bis[3-[[1,1-dimethyl-3-(trimethylammonio)propyl]amino]-3-oxopropyl]iminio]-1,2-ethanediyl]bis[3-[[1,1-dimethyl-3-(trimethylammonio)propyl]amino]-3-oxopropyl]iminio]-1,4-butanediyl dibromide tetrachloride] (9CI) (CA INDEX NAME)

L12 ANSWER 24 OF 29 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)

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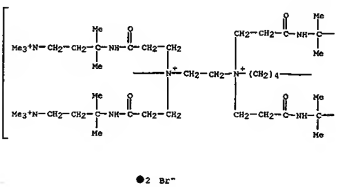
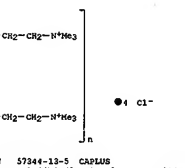


●2 Br⁻

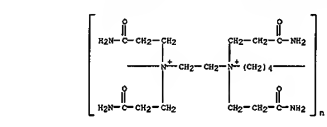
PAGE 1-B



●4 Cl⁻

RN 57344-13-5 CAPLUS
CN Poly[[bis[3-amino-3-oxopropyl]iminio]-1,2-ethanediyl]bis[3-amino-3-oxopropyl]iminio]-1,4-butanediyl dibromide] (9CI) (CA INDEX NAME)

L12 ANSWER 24 OF 29 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)



●2 Br⁻

L12 ANSWER 25 OF 29 CAPLUS COPYRIGHT 2003 ACS on STN

AB Expendable refractory shell molds for precision investment casting of metals by the lost wax technique were made by 1st dipping the form into a bath comprising a sol. of neg. charged colloidal particles of an inorg. substance and/or a soln. of an alk. ionic silicate to form a coating on the surface. This surface was contacted with a soln. contg. a polycationic org. setting agent (polymers or monomers with pos. charged N-groups). Then, excess setting agent was removed. These steps were repeated until the desired thickness was obtained. Thus, a prime coat slurry was prepd. by mixing 77 zircon (325 mesh) with 23 parts by wt. of an aq. colloidal silica dispersion (30% SiO2) for 24 hr. A back-up coat slurry was prepd. by mixing 64.5 molochite clay (200 mesh) with 35.5 parts by wt. of the aq. colloidal silica dispersion for 24 hr. The wax pattern was soln. treated to make the surface wettable. Then, the pattern was dipped into prime coat slurry and while still wet was inserted into a fluidized bed contg. zircon stucco. Without drying, the patterns was dipped for 15 sec into a 20% aq. soln. of polyethylenimine at a pH of 7. Similarly, the pattern was given a back-up coat and stuccoed with molochite clay in a fluidized bed. Then, the coating was again chem. set.

This sequence was repeated 6 times with the back-up coat slurry to give a mold 3/8 in. thick in 20 min. After air drying for 24 hr, the wax was removed from the mold by heating in a furnace for 2-3 min at 1700-1800.degree.F. The mold was free of cracks.

ACCESSION NUMBER: 1974:40219 CAPLUS
DOCUMENT NUMBER: 80:40219
TITLE: Refractory laminate containing negative sols or silicates and polycationic organic compounds
INVENTOR(S): Moore, Earl P., Jr.
PATENT ASSIGNEE(S): du Pont de Nemours, E. I., and Co.
SOURCE: U.S., 10 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 7
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3754945	A	19730828	US 1971-148958	19710601
GB 1338631	A	19731128	GB 1971-18504	19710528
US 3748157	A	19730724	US 1971-148965	19710601
US 3748156	A	19730724	US 1971-148966	19710601
US 3751276	A	19730807	US 1971-148956	19710601
US 3752680	A	19730814	US 1971-148962	19710601
US 3752689	A	19730814	US 1971-148960	19710601
US 3752681	A	19730814	US 1971-148957	19710601
US 3752679	A	19730814	US 1971-148963	19710601
FR 2112172	A5	19720616	FR 1971-22866	19710623
FR 2112172	B1	19740531		
SE 382164	B	19760119	SE 1971-8164	19710623
BE 768971	A1	19711103	BE 1971-105030	19710624
CA 947939	A1	19740528	CA 1971-116600	19710624
CA 947931	A1	19740528	CA 1971-116590	19710624
CA 947938	A1	19740528	CA 1971-116599	19710624
CA 947937	A1	19740528	CA 1971-116598	19710624
CA 947936	A1	19740528	CA 1971-116597	19710624
CA 947935	A1	19740528	CA 1971-116596	19710624
CA 947934	A1	19740528	CA 1971-116593	19710624
CA 947933	A1	19740528	CA 1971-116592	19710624

L12 ANSWER 25 OF 29 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)

CM 573366	CH 1971-9301	19710624
A 19760315		
PRIORITY APPLN. INFO.:	US 1970-49908	19700625
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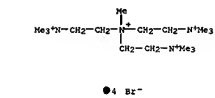
	US 1970-49907	19700625
	US 1970-49909	19700625
	US 1970-49910	19700625
	US 1970-49911	19700625
	US 1970-49912	19700625
	US 1970-49913	19700625
	US 1970-49914	19700625
	US 1970-49915	19700625
	US 1970-49916	19700625
	US 1971-148956	19710601
	US 1971-148957	19710601
	US 1971-148958	19710601
	US 1971-148960	19710601
	US 1971-148962	19710601
	US 1971-148965	19710601
	US 1971-148966	19710601
	US 1971-149963	19710601

IT 52598-22-8
RL: USES (Uses)
(setting agents, for investment molds)
RN 52598-22-8 CAPLUS
CN 1,2-Ethanediaminium, N,N,N,N'-tetramethyl-N',N'-bis[2-(trimethylammonio)ethyl]-, tetrabromide (9CI) (CA INDEX NAME)



●4 Br⁻

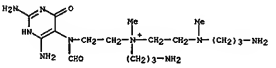
L12 ANSWER 26 OF 29 CAPLUS COPYRIGHT 2003 ACS on STN

GI For diagram(s), see printed CA Issue.

AB N-[2-Chloroethyl]-N-methyl-1,3-propanediamine (I) alkylated guanosine and guanine in transfer-ribonucleic acid, to give 10% 7-[.beta.-(N-3-aminopropyl-N-methylamino)ethyl]guanosine (II). Similar alkylation of guanosine by excess II was accompanied by quaternization of substituted tertiary amino groups to yield guanosine (III). Hydrolysis of II by acid gave 19% of the corresponding guanine deriv.; base hydrolysis of II gave ribofuranosyl deriv. (IV).

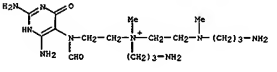
ACCESSION NUMBER:	1973:405527 CAPLUS
DOCUMENT NUMBER:	79:5527
TITLE:	Alkylation of nucleic acids and their components. V. Reaction of N-.beta.-chloroethyl-N-methylpropylene-1,3-diamine with guanosine and transport RNA
AUTHOR(S):	Grineva, N. I.; Lomakina, T. S.
CORPORATE SOURCE:	Inst. Org. Khim., Novosibirsk, USSR
SOURCE:	Khimiya Geterotsiklicheskikh Soedinenii (1973), (3), 407-12 CODEN: KGSSAQ; ISSN: 0132-6244
DOCUMENT TYPE:	Journal
LANGUAGE:	Russian

IT 42216-07-9P 50408-33-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 42216-07-9 CAPLUS
CN 1-Propanaminium, 3-amino-N-[2-[(3-aminopropyl)methylamino]ethyl]-N-[2-[(2,6-diamino-1,4-dihydro-4-oxo-5-pyrimidinyl)formylamino]ethyl]-N-methyl-, pentahydrochloride (9CI) (CA INDEX NAME)



●5 HCl

RN 50408-33-8 CAPLUS
CN 1-Propanaminium, 3-amino-N-[2-[(3-aminopropyl)methylamino]ethyl]-N-[2-[(2,6-diamino-1,4-dihydro-4-oxo-5-pyrimidinyl)formylamino]ethyl]-N-methyl- (9CI) (CA INDEX NAME)



L12 ANSWER 26 OF 29 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)

L12 ANSWER 27 OF 29 CAPLUS COPYRIGHT 2003 ACS on STN

AB R2R1N+CH2CH2NHX- (I; R, R1 = H, alkyl; X = SO2, SO3) were prepd. by reaction of NR2R1-SO2 or NR2R1-SO3 addn. compds. with aziridine. Thus, 32 parts SO2 was passed into a soln. contg. 36.5 parts BuNHR in 150 parts C6H6 at 20-5.degree. and 21.5 part aziridine added slowly at 30-40.degree. to give 63.3% I (R = H, R1 = Bu, X = SO2). Similarly prepd. were 27 other I.

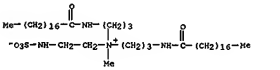
ACCESSION NUMBER:	1971:509827 CAPLUS
DOCUMENT NUMBER:	75:109827
TITLE:	Ammonium betaines
INVENTOR(S):	Distler, Harry; Widder, Rudi
PATENT ASSIGNEE(S):	Badische Anilin- und Soda-Fabrik A.-G.
SOURCE:	Ger. Offen., 15 pp. CODEN: GWXXBX
DOCUMENT TYPE:	Patent
LANGUAGE:	German
FAMILY ACC. NUM. COUNT:	1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 1963399	A	19710624	DE 1969-1963399	19691218
US 3741998	A	19730626	US 1970-96270	19701208
NL 7018343	A	19710622	NL 1970-18343	19701216
FR 2073824	A5	19711001	FR 1970-45308	19701216
JP 48037019	B4	19731108	JP 1970-113159	19701218

PRIORITY APPLN. INFO.: DE 1969-1963399 19691218

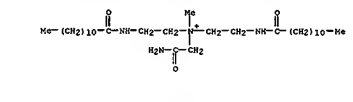
IT 32797-22-1P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 32797-22-1 CAPLUS
CN Ammonium, methylbis(3-stearamidopropyl)[2-(sulfoamino)ethyl]-, hydroxide, inner salt (9CI) (CA INDEX NAME)



L12 ANSWER 28 OF 29 CAPLUS COPYRIGHT 2003 ACS on STN
AB The title compds. [RR1R2NCH2CONH2]+X- (I), useful as antistatic agents for
synthetic fibers, were prepd. by reaction of a tertiary amine, RR1R2N (II)
with XCH2CONH2 (III, X = halogen). Thus, a soln. of 297 II (R = n-C18H37,
R1 = R2 = Me) and 93.5 III (X = Cl) in 390 (wt. parts) MeOH was refluxed 4
hrs., evapd. in vacuo at 50-60.degree., cooled, and filtered to give I (R = n-C18H37, R1 = R2 = Me, X = Cl), straw-colored solids. Other I prepd. were (R, R1, R2, X): stearamidopropyl, CH2CH2OH, CH2CH2OH, Cl; n-C11H23CO2CH2CH2, CH2CH2OH, CH2CH2OH, Cl; oleyl, CH2CH2OAc, CH2CH2OAc, Cl; Me n-C11H23CONH-CH2CH2, C11H23CONHCH2CH2, Br; and Me, oleyl, oleyl, Br; lauryl, (HR1R2+) morpholine, Cl; oleyl, (CH2CH2O)aH, (CH2CH2O)bH, Br.
ACCESSION NUMBER: 1969:114596 CAPLUS
DOCUMENT NUMBER: 70:114596
TITLE: Quaternary ammonium salts
INVENTOR(S): Fujimoto, Takehiko; Saito, Toshio; Suwada, Ataru; Ohno, Satoyoshi
PATENT ASSIGNEE(S): Sanyo Chemical Industry Co., Ltd.
SOURCE: Jpn. Tokkyo Koho, 3 pp.
CODEN: JAXKAD
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

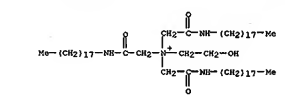
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 43013966	B4	19680613	JP	19640616

IT 23248-18-2P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 23248-18-2 CAPLUS
CN Ammonium, (carbamoylmethyl)bis(2-lauramidoethyl)methyl-, bromide (8CI)
(CA INDEX NAME)



● Br⁻

L12 ANSWER 29 OF 29 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)



CM 2

CRN 14797-55-8
CMF N O3

L12 ANSWER 29 OF 29 CAPLUS COPYRIGHT 2003 ACS on STN
AB The title compds. N(OR)mR'+(CH2CN)3Y- (I) have been prepd. where R is ethylene or propylene, m is 1-15, and Y is OH or an anion whose acid has a
dissocn. const. greater than 1 .times. 10-5. The nitrile groups of I are reactive toward amines, H2O, and hydroxylamines. I are used with leather,
wood, paper, and cotton to improve softness, hygroscopicity, and fungicidal resistance. Further they can be used to treat fabric prior to dyeing, to react with fatty amines to form textile softening and antistatic agents, or with diamines to form crosslinked polymers. Thus, 134 parts N(CH2CN)3 is dissolved in 700 parts dioxane at 95.degree., 60 parts concd. HNO3 and 40 parts ethylene oxide are added over 7 hrs., the reaction mixt. is evapd., and the residue extd. with H2O, neutralized with
HNO3, and evapd. to yield 78% tris(cyanomethyl)-.beta.hydroxyethylammonium
nitrate (III) as an amber glassy solid. Similarly prepd. are N(OCH2CH2)6-(OCH2CH2)N(OH)(CH2CN)3 and tris(cyanomethyl)dodecyl-ethenoxyammonium p-toluenesulfonate. By refluxing 241 parts III, 174 parts hexamethylenediamine, and 200 parts water, a curable polymer is produced. III (80 parts) in 300 parts H2O is added over 6 hrs. to a refluxing mixt. of 280 parts stearylamine, 100 parts H2O, and 100 parts HCONMe2. The mixt. evapd., and the residue triturated with C6H2 to leave tris (N-stearylace-tamido)-.beta.-hydroxyethylammonium nitrate, a textile softening agent.
ACCESSION NUMBER: 1967:2234 CAPLUS
DOCUMENT NUMBER: 66:2234
TITLE: Polycyano quaternary ammonium compounds
INVENTOR(S): Kapar, Charles
PATENT ASSIGNEE(S): Coastal Interchemical Co.
SOURCE: U.S., 2 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3281452		19661025	US	19631223

IT 13916-49-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 13916-49-8 CAPLUS
CN Ammonium, (2-hydroxyethyl)tris[(octadecylcarbamoyl)methyl]-, nitrate (8CI)
(CA INDEX NAME)

CM 1

CRN 45325-53-9
CMF C62 H125 N4 O4

=> fil reg

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	136.97	440.07

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-18.88	-19.53

FILE 'REGISTRY' ENTERED AT 14:47:45 ON 24 DEC 2003
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 23 DEC 2003 HIGHEST RN 630084-36-5
DICTIONARY FILE UPDATES: 23 DEC 2003 HIGHEST RN 630084-36-5

TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2003

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:

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FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:        78630 TO     86330
PROJECTED ANSWERS:               2 TO       336

L14           2 SEA SSS SAM L13

=> s l13 full
FULL SEARCH INITIATED 14:48:24 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -  80773 TO ITERATE

100.0% PROCESSED   80773 ITERATIONS                          76 ANSWERS
SEARCH TIME: 00.00.04

L15          76 SEA SSS FUL L13

=> fil caplus
COST IN U.S. DOLLARS                              SINCE FILE      TOTAL
                                                     ENTRY    SESSION
FULL ESTIMATED COST                                148.15     588.22

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)        SINCE FILE      TOTAL
                                                     ENTRY    SESSION
CA SUBSCRIBER PRICE                                  0.00     -19.53

FILE 'CAPLUS' ENTERED AT 14:48:31 ON 24 DEC 2003
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
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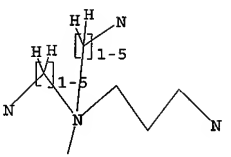

Structure attributes must be viewed using STN Express query preparation.

=> s l16
REGlstRY INITIATED
Substance data SEARCH and crossover from CAS REGISTRY in progress...
Use DISPLAY HITSTR (or FHITSTR) to directly view retrieved structures.

SAMPLE SEARCH INITIATED 14:49:27 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 4124 TO ITERATE

24.2% PROCESSED 1000 ITERATIONS 2 ANSWERS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.01

DICTIONARY FILE UPDATES: 23 DEC 2003 HIGHEST RN 630084-36-5

TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2003

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

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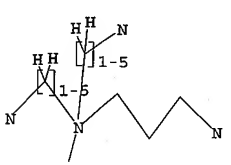
Uploading 10005294.str

L19 STRUCTURE UPLOADED

=> d query
L19 STR



=> fil caplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	148.15	738.02

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-19.53

FILE 'CAPLUS' ENTERED AT 14:50:02 ON 24 DEC 2003
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

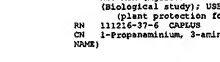
FILE COVERS 1907 - 24 Dec 2003 VOL 139 ISS 26
FILE LAST UPDATED: 23 Dec 2003 (20031223/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

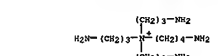
L22 ANSWER 1 OF 44 CAPLUS COPYRIGHT 2003 ACS on STN
AB A plant protection formulation contains at least one Cu2+-contg. compd. as
an active ingredient, characterized in that the active ingredient comprises an amt. of at least one chelate of Cu2+ with a polyamine compd.
ACCESSION NUMBER: 2003:715744 CAPLUS
DOCUMENT NUMBER: 139:241667
TITLE: Plant protection formulation containing a copper-polyamine chelate
INVENTOR(S): Camerlynck, Rudiger; De Potter, Pierre
PATENT ASSIGNEE(S): BMS Micro-Nutrients N. V., Belg.
SOURCE: Eur. Pat. Appl., 14 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1342413	A1	20030910	EP 2002-447035	20020308
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
PRIORITY APPLN. INFO.:			EP 2002-447035	20020308

IT 111216-37-6D, copper chelates 143085-76-1D, copper chelates
RL: AGR (Agricultural use); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)
(plant protection formulation contg.)
RN 111216-37-6 CAPLUS
CN 1-Propanaminium, 3-amino-N,N,N-tris(3-aminopropyl)- (9CI) (CA INDEX NAME)



RN 143085-76-1 CAPLUS
CN 1-Butanaminium, 4-amino-N,N,N-tris(3-aminopropyl)- (9CI) (CA INDEX NAME)



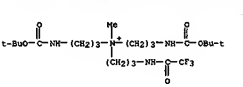
REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 2 OF 44 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)

L22 ANSWER 2 OF 44 CAPLUS COPYRIGHT 2003 ACS on STN
AB Disclosed is a complex for providing nucleic acid expression in a cell. A
polynucleotide and a polymer are mixed together to form the complex wherein the zeta potential of the complex is not pos. Then the complex is
delivered to the cell wherein the nucleic acid is expressed. E.g., 5,5'-dithiobis(2-nitrobenzoic acid)-tetraethylenepentamine copolymer was prepd. and DNA complexes of this polymer were injection into mouse tail and plasmid DNA was release from the complex and was accessible for transcription.
ACCESSION NUMBER: 2003:696467 CAPLUS
DOCUMENT NUMBER: 139:235406
TITLE: Polynucleotide complex delivery
INVENTOR(S): Monahan, Sean D.; Wolff, Jon A.; Hagstrom, James E.; Budker, Vladimir G.; Rozema, David B.; Slattum, Paul M.
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 25 pp., Cont.-in-part of U.S. Ser. No. 450,315.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 10
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003166280	A1	20030904	US 2002-85378	20020227
US 2001019723	A1	20010906	US 1999-450315	19991129
US 6379966	B2	20020430		
WO 2003040375	A1	20030515	WO 2002-US17556	20020530
W: JP				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
PRIORITY APPLN. INFO.:			US 1999-450315	A2 19991129
			US 1999-121730P	P 19990226
			US 1999-146564P	P 19990730
			US 2001-12804	A 20011106

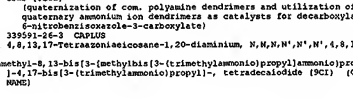
IT 210292-23-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(polynucleotide complex delivery)
RN 210292-23-2 CAPLUS
CN 1-Propanaminium, N,N-bis[3-[(1,1-dimethylethoxy)carbonyl]amino]propyl]-N-methyl-3-[(trifluoroacetyl)amino]-, bromide (9CI) (CA INDEX NAME)

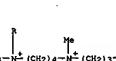


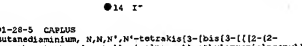
● Br⁻

L22 ANSWER 3 OF 44 CAPLUS COPYRIGHT 2003 ACS on STN
AB Poly(propylene imine) dendrimers DAB-dendr-(NH2)8, DAB-dendr-(NH2)32, and DAB-dendr-(NH2)64 were fully converted with iodomethane to quaternary ammonium ions at both chain ends and branch points and, using less iodomethane, partially converted to quaternary ammonium ions mainly at end
groups. Amidation of the primary amine ends followed by treatment with iodomethane gave the first dendrimers with quaternary ammonium ions only at branch points. After exchange of iodide counterions for chloride, all of the quaternary ammonium ion dendrimers slightly increased the rate of decarboxylation of 6-nitrobenzisoxazole-3-carboxylate ion in aq. soln. Similar quaternary ammonium ion dendrimers having more hydrophobic interiors or more hydrophobic chains on the ends were much more active catalysts for the decarboxylation.
ACCESSION NUMBER: 2003:381153 CAPLUS
DOCUMENT NUMBER: 138:338679
TITLE: Quaternary ammonium ion dendrimers as catalytic media
AUTHOR(S): Kreider, Jason L.; Ford, Warren T.
CORPORATE SOURCE: Dep. of Chem., Oklahoma State Univ., Stillwater, OK, 74078, USA
SOURCE: Polymeric Materials Science and Engineering (2001), 84, 156-157
CODEN: PMSEDG; ISSN: 0743-0515
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
IT 339591-26-3P 339591-28-5P
RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(quaternization of com. polyamine dendrimers and utilization of quaternary ammonium ion dendrimers as catalysts for decarboxylation of 6-nitrobenzisoxazole-3-carboxylate)
RN 339591-26-3 CAPLUS
CN 4,8,13,17-Tetraazoniacicosane-1,20-diaminium, N,N,N,N',N',N',4,8,13,17-decamethyl-8,13-bis[3-[methylbis[3-(trimethylammonio)propyl]ammonio]propyl]-4,17-bis[3-(trimethylammonio)propyl]-, tetradecaiodide (9CI) (CA INDEX NAME)

PAGE 1-A

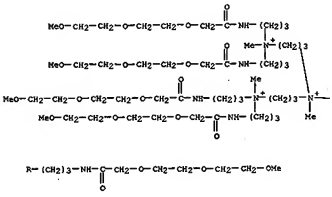


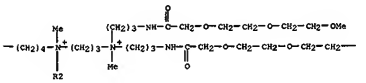




●14 I⁻

RN 339591-28-5 CAPLUS
CN 1,4-Butanediaminium, N,N,N',N'-tetrakis[3-[bis[3-[[[2-[2-methoxyethoxy]ethoxy]acetyl]amino]propyl]methylammonio]propyl]-N,N'-dimethyl-, hexaiodide (9CI) (CA INDEX NAME)





AB A method for improving the efficiency of in vitro transcription system using polyamines isolated from thermophilic bacteria, is disclosed. RNA polymerase of T7 phage, T3 phage, SP6 phage, or K11 phage is mixed with promoter-contg. template DNA. A significant improvement (2 fold at 37.degree.C and 6.5 - 7.5 fold at 60.degree.C) of the effectiveness of the in vitro transcription with addn. of tetrakis(3-aminopropyl)ammonium and caldopentamine, was demonstrated.

ACCESSION NUMBER: 2003:344387 CAPLUS
DOCUMENT NUMBER: 138:349676
TITLE: RNA polymerase activation and improvement of in vitro transcription by polyamines
INVENTOR(S): Kitamura, Nobuo; Yoneda, Sukeyasu; Oshima, Yasuo; Watahiki, Masanori
PATENT ASSIGNEE(S): Nippon Gene Tech K. K., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003125767	A2	20030507	JP 2001-325016	20011023
PRIORITY APPLN. INFO.:			JP 2001-325016	20011023

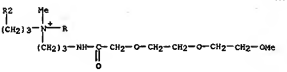
IT 111216-37-6
RL: BSU (Biological study, unclassified); MOA (Modifier or additive use); BIOL (Biological study); USES (Uses)
(RNA polymerase activation and improvement of in vitro transcription by polyamines)

RN 111216-37-6 CAPLUS
CN 1-Propanaminium, 3-amino-N,N,N-tris(3-aminopropyl)- (9CI) (CA INDEX NAME)

IT 521061-52-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(RNA polymerase activation and improvement of in vitro transcription by polyamines)

RN 521061-52-9 CAPLUS
CN 1-Propanaminium, 3-amino-N,N,N-tris(3-aminopropyl)-, chloride (9CI) (CA INDEX NAME)

—OMe



●6 I⁻

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE
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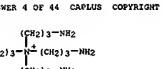

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L22 ANSWER 5 OF 44 CAPLUS COPYRIGHT 2003 ACS on STN

AB Disclosed is a system for providing nucleic acid expression in a cell. A polynucleotide is inserted into a mammalian vasculature. The vessel permeability is increased and the polynucleotide is delivered to the cell where it enhances the endogenous properties of the cell. DNA and a polymer (L-cystine-1,3-bis(3-aminopropyl)piperazine copolymer) were mixed at a 1:1.7 wt:wt ratio in water and dild. to 2.5 mL with Ringers soln. Complexes were injected into tail vein of 25 g ICR mice within 7 s. Mice were sacrificed 24 h after injection and various organs were assayed for luciferase expression.

ACCESSION NUMBER: 2002:736887 CAPLUS
DOCUMENT NUMBER: 137:268433
TITLE: Intravascular delivery of non-viral nucleic acid
INVENTOR(S): Monahan, Sean D.; Wolff, Jon A.; Hagstrom, James E.; Budker, Vladimir G.; Rozema, David B.; Slattum, Paul M.
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 41 pp., Cont.-in-part of U.S. 6,379,966.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 10
PATENT INFORMATION:

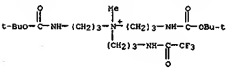
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002137707	A1	20020926	US 2001-917154	20010727
US 2002001574	A1	20020103	US 1997-533	19971230
US 2001009904	A1	20010726	US 1998-70303	19980430
US 2001008882	A1	20010719	US 1999-391260	19990907
US 2001019723	A1	20010906	US 1999-450315	19991129
US 6379966	B2	20020430		
WO 2003040375	A1	20030515	WO 2002-US17556	20020530
W: JP				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
US 2003143204	A1	20030731	US 2002-186757	20020701

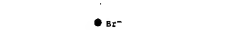
PRIORITY APPLN. INFO.:
US 1997-533 B2 19971230
US 1998-70303 B2 19980430
US 1999-391260 A2 19990907
US 1999-450315 A2 19991129
US 1995-571936 B1 19951213
US 1997-975573 A1 19971121
US 1999-121730P P 19990226
US 1999-146564P P 19990730
US 2001-917154 A2 20010727
US 2001-315394P P 20010827
US 2001-324155P P 20010920
US 2001-12804 A 20011106

IT 210292-23-2P
RL: ACT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(intravascular delivery of non-viral nucleic acid)

RN 210292-23-2 CAPLUS
CN 1-Propanaminium, N,N-bis(3-[[(1,1-dimethylethoxy)carbonyl]amino]propyl)-N-methyl-3-[(trifluoroacetyl)amino]-, bromide (9CI) (CA INDEX NAME)

L22 ANSWER 5 OF 44 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)





L22 ANSWER 6 OF 44 CAPLUS COPYRIGHT 2003 ACS on STN

AB Polymers are formed in the presence of nucleic acid using template polymn.
Also, polymn. occur in heterophase systems. These methods can be used for the delivery of nucleic acids, for condensing the nucleic acid, for forming nucleic acid binding polymers, for forming supramol. complexes contg. nucleic acid and polymer, and for forming an interpolyelectrolyte complex. For example, step polymn. with DNA as a template was performed using N,N'-bis(2-aminoethyl)-1,3-propanediamine and dithiobis(succinimidylpropionate). It was possible to obtain DNA-bound polyamide as a result of the polymn. and the resulting polymer can condense template DNA into compact structures.

ACCESSION NUMBER: 2002:41634 CAPLUS
DOCUMENT NUMBER: 136:107515
TITLE: Polymer formation in presence of nucleic acid using template polymerization
INVENTOR(S): Wolff, Jon A.; Hagstrom, James E.; Budker, Vladimir G.; Trubetskoy, Vladimir S.; Slattum, Paul M.; Hanson, Lisa J.
PATENT ASSIGNEE(S): Mirus Corp., USA
SOURCE: U.S., 26 pp., Cont.-in-part of U.S. Ser. No. 778,657.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 6
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6339067	B1	20020115	US 1997-692	19971230
US 6126956	A	20001003	US 1997-778657	19970103
US 2001024829	A1	20010927	US 2001-753990	20010102
US 6383811	B2	20020507		
US 2002165194	A1	20021107	US 2001-993216	20011116
US 2002061287	A1	20020523	US 2001-4763	20011205
US 2002085989	A1	20020704	US 2001-5294	20011205

PRIORITY APPLN. INFO.:
US 1997-778657 A2 19970103
US 1996-9593P P 19960104
US 1997-692 A2 19971230
US 1999-464871 A3 19991216
US 1999-174132P P 19991231

IT 389132-33-6P
RL: POF (Polymer in formulation); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(polymer formation in presence of nucleic acid using template polymn.)

RN 389132-33-6 CAPLUS
CN 2-Propenoic acid, 2-methyl-, polymer with dimethyl 3,3'-dithiobis(propanimidate) and .alpha.,.alpha.',.alpha.'',.alpha.'''-(1,3-propanediyldiimino)tris[(2-aminoethyl)nitrilo]tris(3,1-propanediyliminomethylene)]tetrakis[.omega.-hydroxypoly(oxy-1,2-ethanediyl)] salt with trifluoroacetic acid (1:2), sodium salt (9CI) (CA INDEX NAME)

CM 1

CRN 389132-32-5
CMF (C8 H16 N2 O2 S2 . C4 H6 O2 . (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C31 H66 N8 O8 . 2 C2 H4 O2)x
CCI PMS

CM 2

CRN 59012-54-3
CMF C8 H16 N2 O2 S2

CM 3

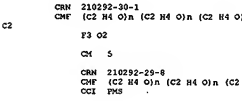
CRN 79-41-4
CMF C4 H6 O2

CM 4

CRN 210292-30-1
CMF (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C31 H66 N8 O8 . 2 C2 H4 O2

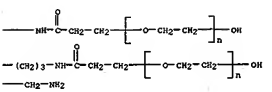
CM 5

CRN 210292-29-8
CMF (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C31 H66 N8 O8
CCI PMS



L22 ANSWER 6 OF 44 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)

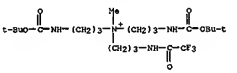
PAGE 1-B



CM 6

CRN 14477-72-6
CMF C2 F3 O2

IT 210292-23-2P 210292-24-3P 210292-26-5P
210292-28-7P 210292-30-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(polymer formation in presence of nucleic acid using template polymn.)
RN 210292-23-2 CAPLUS
CN 1-Propanaminium,
N,N-bis[3-[[(1,1-dimethylethoxy)carbonyl]amino]propyl]-N-methyl-3-[(trifluoroacetyl)amino]-, bromide (9CI) (CA INDEX NAME)



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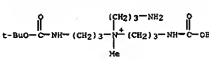
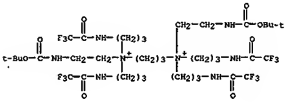
RN 210292-24-3 CAPLUS
CN 1-Propanaminium,
3-amino-N,N-bis[3-[[(1,1-dimethylethoxy)carbonyl]amino]propyl]-N-methyl-, bromide (9CI) (CA INDEX NAME)

L22 ANSWER 6 OF 44 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)



● Br⁻

RN 210292-26-5 CAPLUS
CN 1,3-Propanediaminium,
N,N'-bis[2-[[(1,1-dimethylethoxy)carbonyl]amino]ethyl]-N,N,N',N'-tetrakis[3-[(trifluoroacetyl)amino]propyl]-, dibromide (9CI) (CA INDEX NAME)

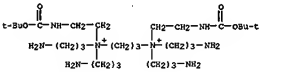


●2 Br⁻

RN 210292-28-7 CAPLUS
CN 1,3-Propanediaminium,
N,N,N',N'-tetrakis(3-aminopropyl)-N,N'-bis[2-[[(1,1-dimethylethoxy)carbonyl]amino]ethyl]-, salt with trifluoroacetic acid (1:2) (9CI) (CA INDEX NAME)

CM 1

CRN 210292-27-6
CMF C29 H66 N8 O4



CM 2

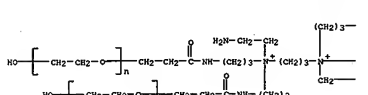
L22 ANSWER 6 OF 44 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)
CRN 14477-72-6
CMF C2 F3 O2

RN 210292-30-1 CAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.,.alpha.',.alpha.'',.alpha.'''-[1,3-propanediylbis[[(2-aminoethyl)nitrilio]bis[3,1-propanediylimino(3-oxo-3,1-propanediyl)]]]tetrakis[.omega.-hydroxy-, salt with trifluoroacetic acid (1:2) (9CI) (CA INDEX NAME)

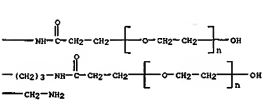
CM 1

CRN 210292-29-8
CMF (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C31 H66 N8 O8
CCI PMS

PAGE 1-A



PAGE 1-B



CM 2

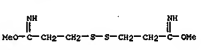
CRN 14477-72-6
CMF C2 F3 O2

L22 ANSWER 6 OF 44 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)

IT 389132-31-4P
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(polymer formation in presence of nucleic acid using template polymn.)
RN 389132-31-4 CAPLUS
CN Propanimidic acid, 3,3'-dithiobis-, dimethyl ester, polymer with N,N'-bis[2-aminoethyl)-2,3-propanediamine and .alpha.,.alpha.',.alpha.'',.alpha.'''-[1,3-propanediylbis[[(2-aminoethyl)nitrilio]bis[3,1-propanediylimino(3-oxo-3,1-propanediyl)]]]tetrakis[.omega.-hydroxypoly(oxy-1,2-ethanediyl)] salt with trifluoroacetic acid (1:2) (9CI) (CA INDEX NAME)

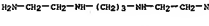
CM 1

CRN 59012-54-3
CMF C8 H16 N2 O2 S2



CM 2

CRN 4741-99-5
CMF C7 H20 N4



CM 3

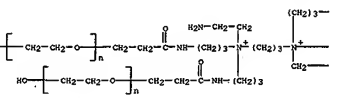
CRN 210292-30-1
CMF (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C31 H66 N8 O8 . 2 C2 F3 O2

CM 4

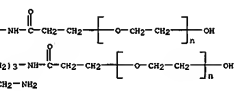
CRN 210292-29-8
CMF (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C31 H66 N8 O8
CCI PMS

L22 ANSWER 6 OF 44 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)

PAGE 1-A



PAGE 1-B



CN 5

CRN 14477-72-6
CMF C2 F3 O2

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 7 OF 44 CAPLUS COPYRIGHT 2003 ACS on STN

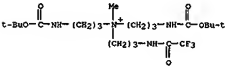
AB Disclosed is a process for transfecting genetic material into a mammalian cell to alter endogenous properties of the cell. The process comprises designing a polynucleotide for transfection. Then the polynucleotide is inserted into a mammalian vessel such as a tail vein or artery. Prior to insertion, subsequent to insertion, or concurrent with insertion the permeability of the vessel is increased thereby the genetic material is delivered to the parenchymal cell altering endogenous properties of the cell. The naked polynucleotide is complexed prior to delivery with amphipathic compds., polymers, or other nonviral vectors. Syntheses are described for the prepn. of several activated disulfide-contg. co-monomers and of pH-cleavable polymers for intracellular compartment release.

ACCESSION NUMBER: 2001:453489 CAPLUS
DOCUMENT NUMBER: 135:41003
TITLE: Intravascular delivery of non-viral nucleic acid
INVENTOR(S): Monahan, Sean D.; Wolf, Jon A.; Slattum, Paul M.; Hagstrom, James E.; Budker, Vladimir G.; Rozema, David B.
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 19 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20010004636 A1		20010621	US 1999-447966	19991123

IT 210292-23-2P
RL: RCT (Reactant); SFN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(intravascular delivery of non-viral nucleic acid)

RN 210292-23-2 CAPLUS
CN 1-Propanaminium, N,N-bis[3-[(1,1-dimethylethoxy)carbonyl]amino]propyl]-N-methyl-3-[(trifluoroacetyl)amino]-, bromide (9CI) (CA INDEX NAME)



● Br⁻

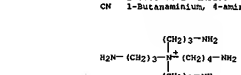
L22 ANSWER 8 OF 44 CAPLUS COPYRIGHT 2003 ACS on STN

AB Cellular polyamines of 6 new thermophiles located in 3 early branched eubacterial clades, were investigated for the chemotaxonomic significance of polyamine distribution profiles. The thermophilic anaerobic Thermosipho japonicus, belonging to the order Thermotogales, contained norspermidine, norspermine and thermospermine in addn. to spermidine and spermine. The polyamine profile was identical to the polyamine compn. of Thermotoga, Fervidobacterium and Petrotoga species of the order. Spermidine, norspermidine, spermine, N4-bis(aminopropyl)spermidine and agmatine were found in thermophilic aerobic Thermaerobacter marianensis. Some differences were obsd. in the polyamine compns. of the phylogenetically related thermophilic anaerobes, Moorella, Dictyoglomus, Thermoanaerobacterium and Thermoanaerobacter species. Thermophilic anaerobic C. kristjanssonii and C. owensensis contained a linear penta-amine, thermopentamine, and 2 quaternary branched penta-amines, N4-bis(aminopropyl)spermidine and N4-bis(aminopropyl)norspermidine, as the major polyamines. A novel tertiary branched penta-amine, N4-aminopropylspermine, was found in the 2 Caldicellulosiruptor species.

ACCESSION NUMBER: 2001:329985 CAPLUS
DOCUMENT NUMBER: 135:58221
TITLE: Polyamines of the thermophilic eubacteria belonging to the genera Thermosipho, Thermaerobacter and Caldicellulosiruptor
AUTHOR(S): Hamana, Koei; Niitsu, Masaru; Samejima, Keijiro; Itoh, Takashi
CORPORATE SOURCE: Gunma University School of Health Sciences, Gunma, 371-8514, Japan
SOURCE: Microbios (2001), 104(409), 177-185
CODEN: MCBIA7; ISSN: 0026-2633
PUBLISHER: Faculty Press
DOCUMENT TYPE: Journal
LANGUAGE: English

IT 111216-37-6 143085-76-1
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)
(polyamines of Thermosipho, Thermaerobacter and Caldicellulosiruptor)

RN 111216-37-6 CAPLUS
CN 1-Propanaminium, 3-amino-N,N,N-tris(3-aminopropyl)- (9CI) (CA INDEX NAME)



RN 143085-76-1 CAPLUS
CN 1-Butanaminium, 4-amino-N,N,N-tris(3-aminopropyl)- (9CI) (CA INDEX NAME)

L22 ANSWER 8 OF 44 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)

REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 9 OF 44 CAPLUS COPYRIGHT 2003 ACS on STN

AB Substituted succinic acid metallo-.beta.-lactamase inhibitors are provided which are useful potentiators of .beta.-lactam antibiotics. Accordingly, the invention provides a method of treating bacterial infections in animals or humans which comprises administering, together with a .beta.-lactam antibiotic, a therapeutically effective amt. of a succinic acid deriv. of the invention, or a pharmaceutically acceptable salt, prodrug, anhydride, or solvate thereof.

ACCESSION NUMBER: 2001:319661 CAPLUS
DOCUMENT NUMBER: 134:336203
TITLE: Substituted succinic acid metallo-.beta.-lactamase inhibitors, their preparation, and their use in treating bacterial infections
INVENTOR(S): Balkovec, James M.; Greenlee, Mark L.; Olson, Steven H.; Rouen, Gregory P.
PATENT ASSIGNEE(S): Merck & Co., Inc., USA
SOURCE: PCT Int. Appl., 129 pp.
CODEN: PIXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001030168	A1	20010503	WO 2000-US29707	20001027
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
US 6630510	B1	20031007	US 2000-697415	20001026
EP 1227721	A1	20020807	EP 2000-975454	20001027
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL			
JP 2003527332	T2	20030916	JP 2001-532588	20001027
US 2003078418	A1	20030424	US 2002-99790	20020315
US 2003207859	A1	20031106	US 2003-339043	20030109

PRIORITY APPLN. INFO.: US 1999-162370P P 19991028
US 2000-697415 A3 20001026
WO 2000-US29707 W 20001027

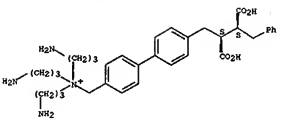
OTHER SOURCE(S): MARPAT 134:336203

IT 337906-80-6
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(succinic acid deriv. metallo-.beta.-lactamase inhibitors, prepn., and use in treating bacterial infections)

RN 337906-80-6 CAPLUS
CN [1,1'-Biphenyl]-4-methanaminium, N,N,N-tris(3-aminopropyl)-4'-[(2S,3S)-2,3-dicarboxy-4-phenylbutyl]-, chloride, trihydrochloride (9CI) (CA INDEX NAME)

L22 ANSWER 9 OF 44 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)

Absolute stereochemistry.



● Cl⁻

● 3 HCl

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

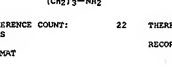
L22 ANSWER 10 OF 44 CAPLUS COPYRIGHT 2003 ACS on STN

AB Cellular polyamines of eight new thermophilic archaebacteria were investigated to det. the chemotaxonomic significance of polyamine distribution profiles. Hyperthermoacidophilic Caldivirga maquilingensis belonging to the family Thermoproteaceae of the Crenarchaeota have a unique polyamine profile comprising spermidine, norspermidine and norspermine as the major polyamines. Within the order Thermococcales of the Euryarchaeota, the major polyamines of an extremely thermophilic terrestrial species of Thermococcus, T. zilligii, were spermidine and agmatine, whereas hyperthermophilic submarine species of Thermococcus and hyperthermophilic submarine Palaeococcus ferrophilus contained a quaternary branched penta-amine, N4-bis(aminopropyl)spermidine, as a major polyamine. A hyperthermophilic methanogen, Methanothermus sociabilis, belonging to Euryarchaeota, contained spermidine and spermine as the major polyamine.

ACCESSION NUMBER: 2001:186968 CAPLUS
DOCUMENT NUMBER: 134:323232
TITLE: Polyamines of the hyperthermophilic archaebacteria belonging to the genera Thermococcus and Methanothermus and two new genera CaIdivirga and Palaeococcus
AUTHOR(S): Hamana, Koei; Itoh, Takashi
CORPORATE SOURCE: Gunma University School of Health Sciences, Gunma, 371-8514, Japan
SOURCE: Microbios (2001), 104(408), 105-114
CODEN: MCBIA7; ISSN: 0026-2633
PUBLISHER: Faculty Press
DOCUMENT TYPE: Journal
LANGUAGE: English

IT 143085-76-1
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)
(polyamines of archaebacteria)

RN 143085-76-1 CAPLUS
CN 1-Butanaminium, 4-amino-N,N,N-tris(3-aminopropyl)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 22 THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 11 OF 44 CAPLUS COPYRIGHT 2003 ACS on STN

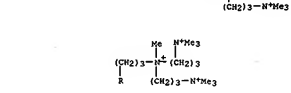
AB The poly(propylene imine) dendrimers DAB-dendr-(NH2)8, DAB-dendr-(NH2)32, and DAB-dendr-(NH2)64 were fully converted with iodomethane to quaternary ammonium ions at both chain ends and branch points and, with less iodomethane, were partially converted to quaternary ammonium ions mainly at end groups. Amidation of the primary amine ends followed by treatment with iodomethane gave the first dendrimers with quaternary ammonium ions only at branch points. After an exchange of iodide counterions for chloride, all of the quaternary ammonium ion dendrimers slightly increased the rate of decarboxylation of 6-nitrobenzisoxazole-3-carboxylate ion in an aq. soln. Similar quaternary ammonium ion dendrimers with more hydrophobic interiors or more hydrophobic chains on the ends were much more active catalysts for the decarboxylation.

ACCESSION NUMBER: 2001:186594 CAPLUS
DOCUMENT NUMBER: 134:367338
TITLE: Quaternary ammonium ion dendrimers from methylation of poly(propylene imine)s
AUTHOR(S): Kreider, Jason L.; Ford, Warren T.
CORPORATE SOURCE: Department of Chemistry, Oklahoma State University, Stillwater, OK, 74078, USA
SOURCE: Journal of Polymer Science, Part A: Polymer Chemistry (2001), 39(6), 821-832
CODEN: JPACEC; ISSN: 0887-624X
PUBLISHER: John Wiley & Sons, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English

IT 339591-32-1 339591-34-3
RL: CAT (Catalyst use); USES (Uses)
(quaternary ammonium ion dendrimers from methylation of poly(propylene imine)s)

RN 339591-32-1 CAPLUS
CN 4,8,13,17-Tetrazoniaeicosane-1,20-diaminium, N,N,N,N',N',N',4,8,13,17-decamethyl-8,13-bis[3-[methylbis[3-(trimethylammonio)propyl]ammonio]propyl]-4,17-bis[3-(trimethylammonio)propyl]-, tetradecachloride (9CI) (CA INDEX NAME)

PAGE 1-A

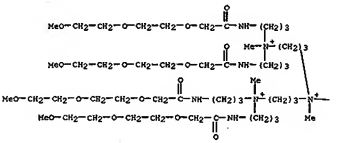


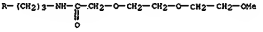
PAGE 2-A

●14 Cl⁻

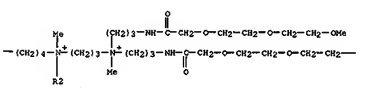
RN 339591-34-3 CAPLUS
CN 1,4-Butanediaminium, N,N,N',N'-tetrakis[3-[bis[3-[[[2-(2-methoxyethoxy)ethoxy]acetyl]amino]propyl]methylammonio]propyl]-N,N'-dimethyl-, hexachloride (9CI) (CA INDEX NAME)

PAGE 1-A

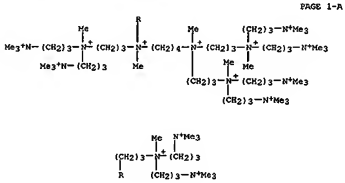




PAGE 1-B



PAGE 1-A

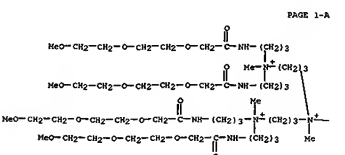


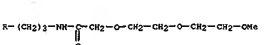
PAGE 2-A

●14 I⁻

RN 339591-28-5 CAPLUS
CN 1,4-Butanediaminium, N,N,N',N'-tetrakis[3-[bis[3-[[[2-(2-methoxyethoxy)ethoxy]acetyl]amino]propyl]methylammonio]propyl]-N,N'-dimethyl-, hexaiodide (9CI) (CA INDEX NAME)

PAGE 1-A

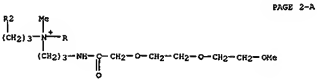




PAGE 1-C

—OMe

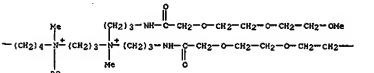
PAGE 2-A



●6 Cl⁻

IT 339591-26-3P 339591-28-5P
RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(quaternary ammonium ion dendrimers from methylation of poly(propylene imine)s)
RN 339591-26-2 CAPLUS
CN 4,8,13,17-Tetraazoniacicosane-1,20-diaminium, N,N,N',N',N',N',4,8,13,17-decamethyl-8,13-bis[3-[methylbis[3-(trimethylammonio)propyl]ammonio]propyl]-4,17-bis[3-(trimethylammonio)propyl]-, tetradecaiodide (9CI) (CA INDEX NAME)

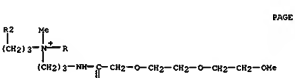
PAGE 1-B



PAGE 1-C

—OMe

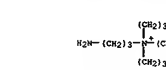
PAGE 2-A



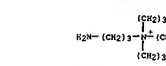
●6 I⁻

REFERENCE COUNT: 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 12 OF 44 CAPLUS COPYRIGHT 2003 ACS on STN
AB Polyamines were identified in a thermophilic, sulfide-oxidizing bacterium.
Comparable polyamines were found in Aquifex, Hydrogenobacter, and Calderobacterium.
ACCESSION NUMBER: 2001:30292 CAPLUS
DOCUMENT NUMBER: 134:204849
TITLE: occurrence of quaternary branched penta-amines in a large sausage-shaped thermophilic sulfide-oxidizing bacterium predominated in hot spring sulfur-turf bacterial mats
AUTHOR(S): Hamana, Koei; Kato, Kenji
CORPORATE SOURCE: School of Health Sciences, Faculty of Medicine, Gunma University, Maebashi, 371-8514, Japan
SOURCE: Journal of General and Applied Microbiology (2000), 46(3), 179-182
CODEN: JGAMA9; ISSN: 0022-1260
PUBLISHER: Microbiology Research Foundation
DOCUMENT TYPE: Journal
LANGUAGE: English
IT 111216-37-6 143085-76-1
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)
(polyamines in large sausage-shaped thermophilic sulfide-oxidizing bacterium from hot spring sulfur-turf bacterial mats)
RN 111216-37-6 CAPLUS
CN 1-Propanaminium, 3-amino-N,N,N-tris(3-aminopropyl)- (9CI) (CA INDEX NAME)



RN 143085-76-1 CAPLUS
CN 1-Butanaminium, 4-amino-N,N,N-tris(3-aminopropyl)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 13 OF 44 CAPLUS COPYRIGHT 2003 ACS on STN
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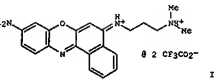


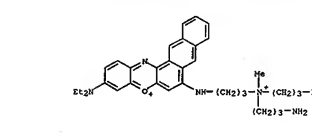
I

AB Red-emitting, fluorescent [8,9]benzophenoxazine dyes are prepd. that are useful for staining nucleic acids in a variety of contexts, including in solns., in electrophoretic gels or other matrixes, in blotting expts. and in assays employing intact, live cells. The new dyes are brighter and permeate cells faster than currently available red-emitting live-cell nucleic acid stains. Thus, Nile Blue chloride was suspended in water, neutralized with NaOH, extd. with CH2Cl2, and dried. The dried basic Nile Blue was treated with 1,3-diiodopropane and N,N,N',N'-tetramethyl-1,3-diaminopropane to give a mixt. contg. I.
ACCESSION NUMBER: 2000:769107 CAPLUS
DOCUMENT NUMBER: 133:336548
TITLE: Prepn. of red-emitting [8,9]benzophenoxazine dyes and their use in staining of nucleic acids
INVENTOR(S): Yan, Xiongwei; Miragila, Sheri; Yuan, Pau Miau
PATENT ASSIGNEE(S): PE Corporation, USA
SOURCE: U.S., 20 pp.
CODEN: USXKAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6140500	A	20001031	US 1999-389918	19990903
WO 2001018124	A1	20010315	WO 2000-US24057	20000901
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1208160	A1	20020529	EP 2000-959749	20000901
EP 1208160	B1	20031119		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				
AU 753608	B2	20021024	AU 2000-71015	20000901
JP 2003509528	T2	20030311	JP 2001-522339	20000901
PRIORITY APPLN. INFO.:			US 1999-389918 A	19990903
			WO 2000-US24057 W	20000901

OTHER SOURCE(S): MARPAT 133:336548
IT 303958-48-7P

L22 ANSWER 13 OF 44 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)
RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); TEM (Technical or engineered material use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(dye; prepn. of red-emitting [8,9]benzophenoxazine dyes for staining of nucleic acids)
RN 303958-48-7 CAPLUS
CN Naphtho[2,3-a]phenoxazin-5-ium, 7-[[3-[bis(3-aminopropyl)methylammonio]propyl]amino]-3-(diethylamino)-, ion(2+) (9CI) (CA INDEX NAME)



●2 H+

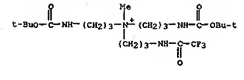
REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 14 OF 44 CAPLUS COPYRIGHT 2003 ACS on STN
AB Disclosed is a process for transfecting genetic material into a mammalian cell to alter endogenous properties of the cell. The process comprises designing a polynucleotide for transfection. Then the polynucleotide is inserted into a mammalian vessel such as a tail vein or artery. Prior to insertion, subsequent to insertion, or concurrent with insertion the permeability of the vessel is increased thereby the genetic material is delivered to the parenchymal cell altering endogenous properties of the cell. The naked polynucleotide is complexed prior to delivery with amphipathic compds., polymers, or other nonviral vectors. Syntheses are described for the prepn. of several activated disulfide-contg. co-monomers and of pH-cleavable polymers for intracellular compartment release.
ACCESSION NUMBER: 2000:608924 CAPLUS
DOCUMENT NUMBER: 133:203820
TITLE: Intravascular delivery of non-viral nucleic acid
INVENTOR(S): Wolff, Jon A.; Monahan, Sean D.; Hagstrom, James E.; Slattum, Paul M.; Budker, Vladimir G.; Rozema, David B.
PATENT ASSIGNEE(S): Mirus Corp., USA
SOURCE: PCT Int. Appl., 38 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 10
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000050617	A1	20000831	WO 2000-US4521	20000222
W: JP				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP 1161547	A2	20011212	EP 2000-911912	20000222
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
WO 2003040375	A1	20030515	WO 2002-US17556	20020530
W: JP				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
US 2003216347	A1	20031120	US 2003-600098	20030620
PRIORITY APPLN. INFO.:			US 1999-121730P P	19990226
			US 1999-146564P P	19990730
			US 1999-447966 A3	19991123
			WO 2000-US4521 W	20000222
			US 2001-12804 A	20011106

IT 210292-23-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(chem. synthesis of polymers for DNA complexation; intravascular delivery of non-viral nucleic acid)
RN 210292-23-2 CAPLUS
CN 1-Propanaminium, N,N-bis[3-[[(1,1-dimethylethoxy)carbonyl]amino]propyl]-N-methyl-3-[(trifluoroacetyl)amino]-, bromide (9CI) (CA INDEX NAME)

L22 ANSWER 14 OF 44 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)



● Br⁻

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 15 OF 44 CAPLUS COPYRIGHT 2003 ACS on STN

AB Polymers are formed in the presence of nucleic acid using template polymn.

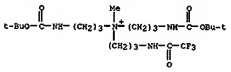
Also, polymn. occurs in heterophase systems. These methods can be used for the delivery of nucleic acids, for condensing the nucleic acid, for forming nucleic acid binding polymers, for forming supramol. complexes contg. nucleic acid and polymer, and for forming an interpolyelectrolyte complex. Step polymn. with DNA as a template was performed using N,N'-bis(2-aminoethyl)-1,3-propanediamine and dithiobis(succinimidylpropionate). It was possible to obtain DNA-bound polyamide as a result of the polymn. and the resulting polymer can condense template DNA into compact structures.

ACCESSION NUMBER: 1999:708870 CAPLUS
DOCUMENT NUMBER: 131:327545
TITLE: Polymer formation in the presence of nucleic acid using template polymerization
INVENTOR(S): Wolff, Jon A.; Hagstrom, James E.; Budker, Vladimir G.
PATENT ASSIGNEE(S): Mirus Corporation, USA
SOURCE: PCT Int. Appl., 73 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9955825	A1	19991104	WO 1999-US8965	19990423
W: JP				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP 1073707	A1	20010207	EP 1999-920014	19990423
R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, NL, SE, IE				
PRIORITY APPLN. INFO.:			US 1998-70299	A 19980430
			WO 1999-US8965	W 19990423

IT 210292-23-2P 210292-24-3P 210292-26-5P
210292-28-7P 210292-30-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(polymer formation in the presence of nucleic acid using template polymn.)

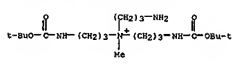
RN 210292-23-2 CAPLUS
CN 1-Propanaminium,
N,N-bis[3-[[(1,1-dimethylethoxy)carbonyl]amino]propyl]-N-methyl-3-[(trifluoroacetyl)amino]-, bromide (9CI) (CA INDEX NAME)



● Br⁻

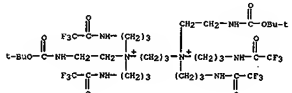
L22 ANSWER 15 OF 44 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)

RN 210292-24-3 CAPLUS
CN 1-Propanaminium,
3-amino-N,N-bis[3-[[(1,1-dimethylethoxy)carbonyl]amino]propyl]-N-methyl-, bromide (9CI) (CA INDEX NAME)



● Br⁻

RN 210292-26-5 CAPLUS
CN 1,3-Propanediaminium,
N,N'-bis[2-[[(1,1-dimethylethoxy)carbonyl]amino]ethyl)-N,N,N',N'-tetrakis[3-[(trifluoroacetyl)amino]propyl]-, dibromide (9CI) (CA INDEX NAME)



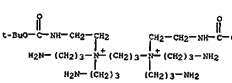
●2 Br⁻

RN 210292-28-7 CAPLUS
CN 1,3-Propanediaminium,
N,N,N',N'-tetrakis[3-aminopropyl)-N,N'-bis[2-[[(1,1-dimethylethoxy)carbonyl]amino]ethyl]-, salt with trifluoroacetic acid (1:2) (9CI) (CA INDEX NAME)

CM 1

CRN 210292-27-6
CMF C29 H66 N8 O4

L22 ANSWER 15 OF 44 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)



CM 2

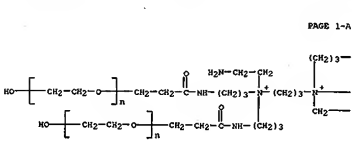
CRN 14477-72-6
CMF C2 F3 O2

RN 210292-30-1 CAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.,.alpha.',.alpha.'',.alpha.'''-[1,3-propanediylbis[[(2-aminoethyl)nitrilio]bis[3,1-propanediylimino(3-oxo-3,1-propanediyl)]]]tetrakis[.omega.-hydroxy-, salt with trifluoroacetic acid (1:2) (9CI) (CA INDEX NAME)

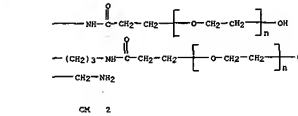
CM 1

CRN 210292-29-8
CMF (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C31 H66 N8 O8
CCI PMS

PAGE 1-A



L22 ANSWER 15 OF 44 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)



IT 248915-96-0P
RL: RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(polymer formation in the presence of nucleic acid using template polymn.)
RN 248915-96-0 CAPLUS
CN 1,3-Propanediamine, N,N'-bis(2-aminoethyl)-, polymer with .alpha.,.alpha.',.alpha.'',.alpha.'''-[1,3-propanediylbis[[(2-aminoethyl)nitrilo]bis[3,1-propanediylimino(3-oxo-3,1-propanediyl)]]]tetrakis[.omega.-hydroxypoly(oxy-1,2-ethanediyl)] salt with
trifluoroacetic acid (1:2) (9CI) (CA INDEX NAME)

CM 1

CRN 4741-99-5
CMF C7 H20 N4

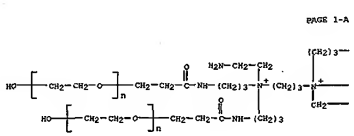
CM 2

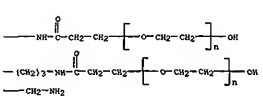
CRN 210292-30-1
CMF (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C31 H66 N8 O8 . 2 C2 F3 O2

CM 3

CRN 210292-29-8

L22 ANSWER 15 OF 44 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)
CMF (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C31 H66 N8 O8
CCI PMS





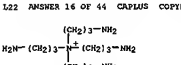
CM 4

CRN 14477-72-6
CMF C2 F3 O2

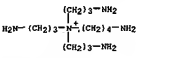
REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 16 OF 44 CAPLUS COPYRIGHT 2003 ACS on STN
AB Cellular polyamines of thermophilic eubacteria and archaebacteria were investigated for the chemotaxonomic significance of polyamine distribution
profiles within thermophiles. A quaternary branched penta-amine, N4-bis(aminopropyl)norspermidine, and another quaternary branched penta-amine, N4-bis (aminopropyl)spermidine, were the main polyamines in the thermophilic eubacteria, Aquifex pyrophilus and Thermodesulfobacterium
mobile, resp. These quaternary amines and linear hexa-amines were also found in Thermus thermophilus but not detected in the new Thermus species,
T. brockianus and T. oshimai, and Meiothermus species, M. chianophilus and
M. silvanus. In new members of Crenarchaeota, Sulfurisphaera ohwakuensis contained norspermidine, spermidine, norspermine and spermine. In addn. to these triamines and tetraamines, Stetteria hydrogenophila and Thermocladium modestius contained homocaldopentamine and/or thermopentamine, and Sulfophobococcus zilligii contained cadaverine and homospermidine. The main polyamine of the hyperthermophilic Euryarchaeota, Pyrococcus horikoshii and Thermococcus fumicolans, was N4-bis(aminopropyl)spermidine. Hyperthermophilic Methanothermus fervidus and Methanopyrus kandleri contained spermidine, spermine and agmatine, and
lacked long and branched polyamines, suggesting that the distribution of long and branched polyamines are not essential for thermophilic methanogens.
ACCESSION NUMBER: 1999:329098 CAPLUS
DOCUMENT NUMBER: 131:113477
TITLE: Polyamines of the thermophilic eubacteria belonging to
the genera Aquifex, Thermodesulfobacterium, Thermus and Meiothermus, and the thermophilic archaebacteria belonging to the genera Sulfurisphaera, Sulfophobococcus, Stetteria, Thermocladium, Pyrococcus, Thermococcus, Methanopyrus and Methanothermus
AUTHOR(S): Hamana, K.; Hamana, H.; Shinozawa, T.; Niitsu, M.; Samejima, K.; Itoh, T.
CORPORATE SOURCE: Gunma University School of Health Sciences, Gunma, 371-8514, Japan
SOURCE: Microbios (1999), 97(387), 117-130
CODEN: MCBIA7; ISSN: 0026-2633
PUBLISHER: Faculty Press
DOCUMENT TYPE: Journal
LANGUAGE: English
IT 111216-37-6 143085-76-1
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)
(polyamines of thermophilic eubacteria and thermophilic archaebacteria)
RN 111216-37-6 CAPLUS
CN 1-Propanaminium, 3-amino-N,N,N-tris(3-aminopropyl)- (9CI) (CA INDEX NAME)

L22 ANSWER 16 OF 44 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)



RN 143085-76-1 CAPLUS
CN 1-Butanaminium, 4-amino-N,N,N-tris(3-aminopropyl)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 17 OF 44 CAPLUS COPYRIGHT 2003 ACS on STN

AB The self-assembly of supramol. complexes of nucleic acids and polymers is of relevance to several biol. processes including viral and chromatin formation as well as gene therapy vector design. We now show that template polymn. facilitates condensation of DNA into particles that are <150 nm in diam. Inclusion of a poly(ethylene glycol)-contg. monomer prevents aggregation of these particles. The DNA within the particles remains biol. active and can express foreign genes in cells. The formation or breakage of covalent bonds has until now not been employed to

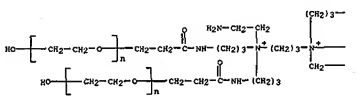
compact DNA into artificial particles.

ACCESSION NUMBER: 1998:640382 CAPLUS
DOCUMENT NUMBER: 130:21826
TITLE: Self-assembly of DNA-polymer complexes using template polymerization
AUTHOR(S): Trubetskoy, Vladimir S.; Budker, Vladimir G.; Hanson, Lisa J.; Slattum, Paul M.; Wolff, Jon A.; Hagstrom, James E.
CORPORATE SOURCE: Mirus Corporation, Madison, WI, 53711, USA
SOURCE: Nucleic Acids Research (1998), 26(18), 4178-4185
CODEN: NARHAD; ISSN: 0305-1048
PUBLISHER: Oxford University Press
DOCUMENT TYPE: Journal
LANGUAGE: English
IT 210292-30-1P
RL: RCT (Reactant); SFN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. of monomers to study self-assembly of DNA-polymer complexes using template polymn.)
RN 210292-30-1 CAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.,.alpha.',.alpha.'',.alpha.'''-[1,3-propanediylbis[[[(2-aminoethyl)nitrilo]bis(3,1-propanediylimino(3-oxo-3,1-propanediyl)]]]tetrakis[.omega.-hydroxy-, salt with trifluoroacetic acid (1:2) (9CI) (CA INDEX NAME)

CM 1

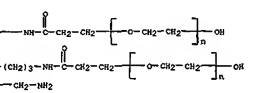
CRN 210292-29-8
CMF (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C31 H66 N8 O8
CCI PMS

PAGE 1-A



L22 ANSWER 17 OF 44 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)

PAGE 1-B



CM 2

CRN 14477-72-6
CMF C2 F3 O2

REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE
FORMAT

L22 ANSWER 18 OF 44 CAPLUS COPYRIGHT 2003 ACS on STN

AB Cellular polyamines of several thermophilic eubacteria and archaebacteria were investigated by high performance liq. chromatog. and gas chromatog. A hyperthermophilic eubacterium, Thermotoga maritima, contained a linear pentasamine and a linear hexasamine. The moderate thermophiles, Thermotoga elfii and thermodesulfovibrio yellowstonii contained a linear pentasamine. A quaternary branched pentasamine, N4-bis(aminopropyl)spermidine, was the major polyamine in extremely thermophilic Thermoleophilum species. Long linear and branched polyamines occurred in the extreme thermophiles, Thermus and Rhodothermus, but were not detected in moderately thermophilic

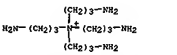
Meiothermus. In archaebacteria, linear pentaamines were distributed in hyperthermophilic Aeropyrum. A moderately thermophilic hyperacidophile, Picrophilus, contained spermidine and lacked longer amines. N4-bis(aminopropyl)spermidine was found in a hyperthermophilic methanogen,

Methanococcus jannaschii, as a major polyamine, but not detected in extremely/moderately thermophilic Methanococcus and Methanobacterium species. This is the first report on the occurrence of quaternary branched polyamine in methanogenic archaebacteria. The chemotaxonomic and

phylogenetic significance of the distribution of long linear and branched polyamines possibly assocd. with their thermophily exist in the thermophiles.

ACCESSION NUMBER: 1998:645673 CAPLUS
DOCUMENT NUMBER: 129:341520
TITLE: Polyamines of the thermophilic eubacteria belonging to

the genera Thermotoga, Thermodesulfovibrio, Thermoleophilum, Thermus, Rhodothermus and Meiothermus, and the thermophilic archaebacteria belonging to the genera Aeropyrum, Picrophilus, Methanobacterium and Methanococcus
AUTHOR(S): Hamana, K.; Niitsu, M.; Samejima, K.; Itoh, T.; Hamana, H.; Shinozawa, T.
CORPORATE SOURCE: Gunma University School of Health Sciences, Gunma, 371, Japan
SOURCE: Microbios (1998), 93(377), 7-21
CODEN: MCBIAT; ISSN: 0026-2633
PUBLISHER: Faculty Press
DOCUMENT TYPE: Journal
LANGUAGE: English
IT 111216-37-6 143085-76-1
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)
(polyamines of thermophilic eubacteria and thermophilic archaebacteria)
RN 111216-37-6 CAPLUS
CN 1-Propanaminium, 3-amino-N,N,N-tris(3-aminopropyl)- (9CI) (CA INDEX NAME)



RN 143085-76-1 CAPLUS
CN 1-Butanaminium, 4-amino-N,N,N-tris(3-aminopropyl)- (9CI) (CA INDEX NAME)

L22 ANSWER 18 OF 44 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)

REFERENCE COUNT: 47 THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE
FORMAT

L22 ANSWER 19 OF 44 CAPLUS COPYRIGHT 2003 ACS on STN

AB A method of making a compd. for delivery to a cell comprising forming a polymer in the presence of a biol. active drug is disclosed.. A method of
forming polymers in the presence of nucleic acid using template polymn. and of having the polymn. occur in heterophase systems is further disclosed. These methods can be used for the delivery of nucleic acids, for condensing the nucleic acid, for forming nucleic acid-binding polymers, for forming supramol. complexes contg. nucleic acid and polymer,
and for forming an interpolyelectrolyte complex. The nuclear localizing peptide of SV40 T antigen was copolymd. with dithiobis[succinimidylpropion
ate] in the presence of plasmid DNA and this process enabled the formation
of complexes that expressed luciferase after transfection into 3T3 cells in culture.

ACCESSION NUMBER: 1998:485169 CAPLUS
DOCUMENT NUMBER: 129:118754

TITLE: Method for making a compound for delivery to cells by forming a polymer in the presence of a template drug, especially nucleic acid

INVENTOR(S): Wolff, Jon A.; Hagstrom, James E.; Budker, Vladimir G.; Trubetskoy, Vladimer S.; Slattum, Paul M.; Hanson,
Lisa J.
PATENT ASSIGNEE(S): Mirus Corp., USA

SOURCE: PCT Int. Appl., 79 pp.
CODEN: PIXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 6
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9825541	A1	19980709	WO 1997-US24089	19971230
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 6126964	A	20001003	US 1997-778657	19970103
EP 958356	A1	19991124	EP 1997-954803	19971230
R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, NL, SE, IE				
US 2002061267	A1	20020523	US 2001-4763	20011205
US 2002085989	A1	20020704	US 2001-5294	20011205

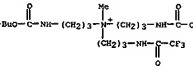
PRIORITY APPLN. INFO.: US 1997-778657 A 19970103
US 1996-95939P P 19960104
WO 1997-US24089 W 19971230
US 1999-464871 A3 19991216

OTHER SOURCE(S): MARPAT 129:118754

IT 210292-23-2P 210292-24-3P 210292-26-5P 210292-28-7P 210292-30-1P
RL: SPN (Synthetic preparation); PREP (Preparation)
(method for making compd. for delivery to cells by forming polymer in presence of template drug, esp. nucleic acid]

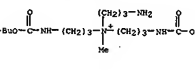
RN 210292-23-2 CAPLUS
CN 1-Propanaminium,
N,N-bis[3-[[(1,1-dimethylethoxy)carbonyl]amino]propyl]-N-methyl-3-[(trifluoroacetyl)amino]-, bromide (9CI) (CA INDEX NAME)

L22 ANSWER 19 OF 44 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)



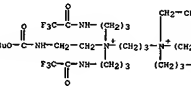
● Br⁻

RN 210292-24-3 CAPLUS
CN 1-Propanaminium,
3-amino-N,N-bis[3-[(1,1-dimethylethoxy)carbonyl]amino]propyl]-N-methyl-, bromide (9CI) (CA INDEX NAME)



● Br⁻

RN 210292-26-5 CAPLUS
CN 1,3-Propanediaminium,
N,N'-bis[2-[[(1,1-dimethylethoxy)carbonyl]amino]ethyl]-N,N,N',N'-tetrakis[3-[(trifluoroacetyl)amino]propyl]-, dibromide (9CI) (CA INDEX NAME)



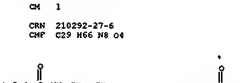
●2 Br⁻

RN 210292-28-7 CAPLUS
CN 1,3-Propanediaminium,
N,N,N',N'-tetrakis[3-aminopropyl)-N,N'-bis[2-[[(1,1-dimethylethoxy)carbonyl]amino]ethyl]-, salt with trifluoroacetic acid (1:2) (9CI) (CA INDEX NAME)

L22 ANSWER 19 OF 44 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)

CM 1

CRN 210292-27-6
CMF C29 H66 N8 O4



CM 2

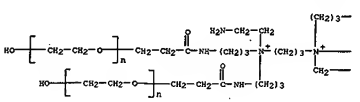
CRN 14477-72-6
CMF C2 F3 O2

RN 210292-30-1 CAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.,.alpha.',.alpha.'',.alpha.'''-[1,3-propanediylbis[[(2-aminoethyl)nitrilo]bis[3,1-propanediylimino(3-oxo-3,1-propanediyl)]]]tetrakis[.omega.-hydroxy-, salt with trifluoroacetic acid (1:2) (9CI) (CA INDEX NAME)

CM 1

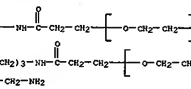
CRN 210292-29-8
CMF (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C31 H66 N8 O8
CCI PMS

PAGE 1-A



L22 ANSWER 19 OF 44 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)

PAGE 1-B



CM 2

CRN 14477-72-6
CMF C2 F3 O2

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 20 OF 44 CAPLUS COPYRIGHT 2003 ACS on STN

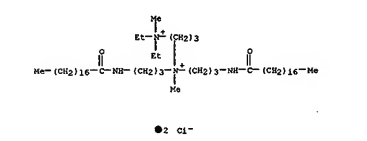
AB The softeners contain (a) quaternary ammonium compds. with .gtoreq.1 C10-28 long chain hydrophobic groups and .gtoreq.2 quaternary ammonium cationic groups and (b) anionic surfactants with C10-28 alkyl or C10-28 alkenyl groups. Thus, reacting pentaerythritol 1, stearic acid 1, and .alpha.-chloroacetic acid 2 mol while removing generated H2O at 110.degree. in the presence of p-toluenesulfonic acid, cooling the obtained ester to 80.degree., dilg. with Me2CHOH, adding dropwise 2 mol Et3N, and reacting gave a quaternary ammonium compd., which was blended with Me .alpha.-sulfostearate Na salt at ratio 1:0.5 to give a softener. A cotton towel and an acrylic fabric were washed and treated with the softener.

ACCESSION NUMBER: 1997:413154 CAPLUS
DOCUMENT NUMBER: 127:36234
TITLE: Fabric softeners for cotton textiles and synthetic fabrics
INVENTOR(S): Imada, Masahiro; Sasaki, Hisaya; Imai, Hiroto; Fujiwara, Masami
PATENT ASSIGNEE(S): Lion Corp., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09111660	A2	19970428	JP 1995-264495	19951012
PRIORITY APPLN. INFO.:			JP 1995-264495	19951012

IT 190891-60-7P
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(fabric softeners contg. quaternary ammonium compds. and anionic surfactants for cotton textiles and synthetic fabrics)

RN 190391-60-7 CAPLUS
CN 1,3-Propanediaminium, N,N-diethyl-N,N'-dimethyl-N',N'-bis[3-[(1-oxooctadecyl)amino]propyl]-, dichloride (9CI) (CA INDEX NAME)



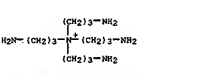
L22 ANSWER 21 OF 44 CAPLUS COPYRIGHT 2003 ACS on STN

AB The five hyperthermophilic archaebacteria located on the phylogenetically divergent four orders of Archaeoglobales, Thermococcales, Thermoproteales and Sulfolobales, resp., varied in their cellular polyamine components. Archaeoglobus fulgidus and Archaeoglobus profundus contained two quaternary branched penta-amines, N4-bis(aminopropyl)spermidine and N4-bis(aminopropyl)-norspermidine, as a major polyamine in addn. to spermidine and spermine. Spermidine, spermine, a tertiary branched tetra-amine, N4-aminopropylspermidine, and N4-bis(aminopropyl)spermidine were the major polyamines and canavalmaine was the minor polyamine in Thermococcus peptonophilus. Pyrobaculum aerophilum and Sulfolobus hakonensis contained norspermidine, spermidine and norspermine as the major polyamines but they lacked either branched or long linear polyamines.

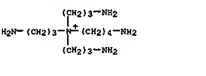
ACCESSION NUMBER: 1997:95001 CAPLUS
DOCUMENT NUMBER: 126:183564
TITLE: Polyamines of hyperthermophilic archaebacteria, Archaeoglobus, Thermococcus, Pyrobaculum and Sulfolobus
AUTHOR(S): Hamana, Koei; Hamana, Hiroshi; Niitsu, Masaru; Samejima, Keijiro; Itoh, Takaaki
CORPORATE SOURCE: Coll. Med. Care Technology, Gunma Univ., Gunma, 371, Japan
SOURCE: Microbios (1996), 87(351), 69-76
CODEN: MCBIA7; ISSN: 0026-2633
PUBLISHER: Faculty Press
DOCUMENT TYPE: Journal
LANGUAGE: English

IT 111216-37-6 143085-76-1
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)
(polyamines of hyperthermophilic archaebacteria, Archaeoglobus, Thermococcus, Pyrobaculum and Sulfolobus)

RN 111216-37-6 CAPLUS
CN 1-Propanaminium, 3-amino-N,N,N-tris(3-aminopropyl)- (9CI) (CA INDEX NAME)



RN 143085-76-1 CAPLUS
CN 1-Butanaminium, 4-amino-N,N,N-tris(3-aminopropyl)- (9CI) (CA INDEX NAME)



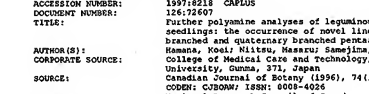
L22 ANSWER 22 OF 44 CAPLUS COPYRIGHT 2003 ACS on STN

AB Polyamines of the seeds, seedlings, and some other tissues of 15 leguminous plants were analyzed by high performance liq. chromatog. and gas chromatog. A novel tertiary branched pentaamine, N5-aminobutylhomospermine, was detected in the seed of Vicia viliosa and another novel quaternary branched pentaamine, N4-bis(aminopropyl)spermidine, in the seed of Crotalaria spectabilis. Norspermine and a novel linear pentaamine, caldopentamine, were found in the seed of Gleditschia japonica. Other unusual polyamines such as norspermidine, homospermidine, thermospermine, N4-methylthermospermine, homospermine, and N-(3-aminopropyl)aminopropanol occur widely within leguminous seeds. Nine groups of plant response were found with respect to increasea of diaminopropane, putrescine, cadaverine, and agmatine in the leguminous seedlings after germination.

ACCESSION NUMBER: 1997:8218 CAPLUS
DOCUMENT NUMBER: 126:72607
TITLE: Further polyamine analyses of leguminous seeds and seedlings: the occurrence of novel linear, tertiary branched and quaternary branched pentaamines
AUTHOR(S): Hamana, Koei; Niitsu, Masaru; Samejima, Keijiro
CORPORATE SOURCE: College of Medical Care and Technology, Gunma University, Gunma, 371, Japan
SOURCE: Canadian Journal of Botany (1996), 74(11), 1766-1772
CODEN: CJOBAW; ISSN: 0008-4026
PUBLISHER: National Research Council of Canada
DOCUMENT TYPE: Journal
LANGUAGE: English

IT 143085-76-1
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)
(polyamine anal. of leguminous seeds and seedlings)

RN 143085-76-1 CAPLUS
CN 1-Butanaminium, 4-amino-N,N,N-tris(3-aminopropyl)- (9CI) (CA INDEX NAME)



L22 ANSWER 23 OF 44 CAPLUS COPYRIGHT 2003 ACS on STN

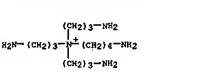
AB Polyamines of seventeen strains of thermophilic Gram-poa. anaerobes belonging to seven genera of clostridia were analyzed by high-performance liq. chromatog. and gas chromatog. Caldiceliulosiruptor contained spermidine, spermine, thermospermine, thermopentamine, two tertiary branched tetraamines (N4-aminopropylspermidine and N4-aminopropylnorspermidine) and two quaternary branched pentaamines [N4-bis(aminopropyl)spermidine and N4-bis(aminopropyl)norspermidine).

The major polyamines of Caloramator, Coprothermobacter, Hoorelia, Thermoanaerobacger, Thermoanaerobacterium and thermophilic Clostridium were putrescine, spermidine and spermine. N4-aminopropylspermidine and N4-bis(aminopropyl)spermidine were found as minor polyamines in some cultures of Hoorelia and Thermoanaerobacter.

ACCESSION NUMBER: 1996:423666 CAPLUS
DOCUMENT NUMBER: 125:81445
TITLE: Polyamines of thermophilic Gram-positive anaerobes belonging to the genera Caldicellulosiruptor, Caloramator, Clostridium, Coprothermobacter, Hoorelia, Thermoanaerobacter and Thermoanaerobacterium
AUTHOR(S): Hamana, Koei; Hamana, Hiroshi; Niitsu, Masaru; Samejima, Keijiro
CORPORATE SOURCE: Coll. Medical Care Technol., Gunma Univ., Gunma, 371, Japan
SOURCE: Microbios (1996), 85(345), 213-222
CODEN: MCBIA7; ISSN: 0026-2633
PUBLISHER: Faculty Press
DOCUMENT TYPE: Journal
LANGUAGE: English

IT 111216-37-6 143085-76-1
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)
(polyamines of thermophilic Gram-poa. anaerobes)

RN 111216-37-6 CAPLUS
CN 1-Propanaminium, 3-amino-N,N,N-tris(3-aminopropyl)- (9CI) (CA INDEX NAME)

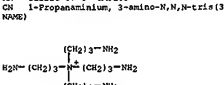


RN 143085-76-1 CAPLUS
CN 1-Butanaminium, 4-amino-N,N,N-tris(3-aminopropyl)- (9CI) (CA INDEX NAME)

L22 ANSWER 24 OF 44 CAPLUS COPYRIGHT 2003 ACS on STN

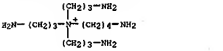
AB Polyamines of thermophilic eubacteria and hyperthermophilic archaebacteria were analyzed by high-performance liq. chromatog. and gas chromatog. Thermotoga, Petrotoga, Fervidobacterium and Dictyoglomus contained tetraamines such as spermine, norspermine and thermospermine, penta-amines such as caldopentamine, homocaldopentamine and thermopentamine, and a hexa-amine, caldohexamine. These linear polyamines and the quaternary branched pentaamines, N4-bis(aminopropyl)spermidine and N4-bis(aminopropyl)norspermidine were found in Thermoanaerobacter cellulolyticus. N4-bis(aminopropyl)spermidine, spermidine and spermine were the polyamine components of the other authentic Thermoanaerobacter species. The main polyamine of Thermodesulfobacterium commune was N4-bis(aminopropyl)spermidine. In archaebacteria, an unusual triamine, homospermidine, occurred in Desulfurococcus and Staphylothermus. Caldopentamine, thermopentamine and caldohexamine were detected in Pyrodictium, Hyperthermus and Staphylothermus. Thermoproteus and Pyrobaculum contained tri- and tetra-amines but lacked long linear and branched polyamines. The long linear and branched polyamines are widely distributed in thermophilic eubacteria and archaebacteria and are chemotaxonomically useful in the thermophiles.

ACCESSION NUMBER: 1996:393216 CAPLUS
DOCUMENT NUMBER: 125:53207
TITLE: Distribution of long linear and branched polyamines in thermophilic eubacteria and hyperthermophilic archaebacteria
AUTHOR(S): Hamana, Koei; Hamana, Hiroshi; Niitsu, Masaru; Samejima, Keijiro; Itoh, Takashi
CORPORATE SOURCE: Coll. Medical Care Technol., Gunma Univ., Gunma, 371, Japan
SOURCE: Microbios (1996), 85(342), 19-33
CODEN: MCBIA7; ISSN: 0026-2633
PUBLISHER: Faculty Press
DOCUMENT TYPE: Journal
LANGUAGE: English
IT 111216-37-6 143085-76-1
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)
(distribution of long linear and branched polyamines in thermophilic eubacteria and hyperthermophilic archaebacteria)
RN 111216-37-6 CAPLUS
CN 1-Propanaminium, 3-amino-N,N,N-tris(3-aminopropyl)- (9CI) (CA INDEX NAME)



RN 143085-76-1 CAPLUS
CN 1-Butanaminium, 4-amino-N,N,N-tris(3-aminopropyl)- (9CI) (CA INDEX NAME)

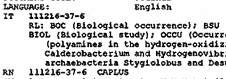
L22 ANSWER 24 OF 44 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)



L22 ANSWER 25 OF 44 CAPLUS COPYRIGHT 2003 ACS on STN

RE A novel quaternary branched penta-amine, N4-bis(aminopropyl)norspermidine, was the main polyamine of tho thermophilic, chemolithotrophic, hydrogen-oxidizing eubacteria, Hydrogenobacter acidophilus and Calderobacterium hydrogenophilum. The mesophilic, chemolithotrophic, hydrogen-oxidizing eubacterium, Hydrogenovibrio marinus contained putrescine and spermidine. The thermoacidophilic Stygiolobus azoricus growing chemolithotrophically by redn. of sulfur, and 4 thermoacidophile, Desulfurolobus ambivalens, growing chemolithotrophically by either oxidn. or redn. of sulfur, belonging to the family Sulfolobaceae [order Sulfolobales] of the archaebacteria, ubiquitously contained norspermidine, spermidine, norspermine and spermine.

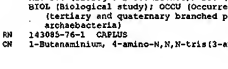
ACCESSION NUMBER: 1995:606451 CAPLUS
DOCUMENT NUMBER: 123:29188
TITLE: Polyamines in the hydrogen-oxidizing eubacteria Hydrogenobacter, Calderobacterium and Hydrogenovibrio and the sulfur-reducing archaebacteria Stygiolobus and Desulfurolobus
AUTHOR(S): Hamana, Koei; Hamana, Hiroshi; Itoh, Takashi
CORPORATE SOURCE: College of Medical Care and Technology, Gunma University, 371, Japan
SOURCE: Microbios (1995), 81(329), 223-9
CODEN: MCBIA7; ISSN: 0026-2633
PUBLISHER: Faculty Press
DOCUMENT TYPE: Journal
LANGUAGE: English
IT 111216-37-6
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)
(polyamines in the hydrogen-oxidizing eubacteria Hydrogenobacter, Calderobacterium and Hydrogenovibrio and the sulfur-reducing archaebacteria Stygiolobus and Desulfurolobus)
RN 111216-37-6 CAPLUS
CN 1-Propanaminium, 3-amino-N,N,N-tris(3-aminopropyl)- (9CI) (CA INDEX NAME)



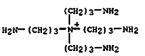
L22 ANSWER 26 OF 44 CAPLUS COPYRIGHT 2003 ACS on STN

AB Polyamines of thermophilic archaebacteria were analyzed by HPLC and gas chromatog. Thermoplasma acidophilum and Thermoplasma volcanium ubiquitously contained spermidine and spermine. Four spp. of Sulfolobus, S. acidocaldarius, S. solfataricus, S. motallicus, and S. shibatae, 2 spp. of Acidianus, A. brierleyi and A. infernus, and Metallosphaera sedula contained norspermidine and norspermine in addn. to spermidine and spermine, but quant. distribution profiles were species-specific. A tertiary tetrasmine, N4-aminopropylspermidine, and a quaternary pentasmine, N4-bis(aminopropyl)spermidine, were detected as major polyamines in 3 spp. of Thermococcus, T. celer, T. litoralis, and T. stetteri, and 2 Pyrococcus spp., P. furiosus and P. woesei. This is the 1st report of the occurrence of branched polyamines in archaebacteria.

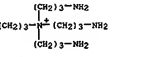
ACCESSION NUMBER: 1995:82668 CAPLUS
DOCUMENT NUMBER: 122:5033
TITLE: Occurrence of tertiary and quaternary branched polyamines in thermophilic archaebacteria
AUTHOR(S): Hamana, Koei; Hamana, Hiroshi; Niitsu, Masaru; Samejima, Keijiro; Sakene, Takeshi; Yokota, Akira
CORPORATE SOURCE: Coll. Med. Care Technol., Gunma Univ., Maebashi, 371, Japan
SOURCE: Microbios (1994), 79(319), 109-19
CODEN: MCBIA7; ISSN: 0026-2633
DOCUMENT TYPE: Journal
LANGUAGE: English
IT 143085-76-1
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)
(tertiary and quaternary branched polyamines in thermophilic archaebacteria)
RN 143085-76-1 CAPLUS
CN 1-Butanaminium, 4-amino-N,N,N-tris(3-aminopropyl)- (9CI) (CA INDEX NAME)



L22 ANSWER 27 OF 44 CAPLUS COPYRIGHT 2003 ACS on STN
AB The effects of novel polyamines on aminoacyl-tRNA formation catalyzed by Escherichia coli, Sulfolobus acidocaldarius, and Thermus thermophilus HB8 S-100 extz. were investigated. These effects were diverse and differed depending on the amino acid and the enzyme used. A quaternary polyamine, tetrakis(3-aminopropyl)ammonium, inhibited phenylalanyl-tRNA synthesis catalyzed by the T. thermophilus ext., but did not inhibit the other aminoacyl-tRNA formations tested. The inhibition was obsd. in hybrid reactions where the thermophile tRNA or ext. was replaced by its E. coli counterpart, although the quaternary amine did not inhibit Phe-tRNA formation by the E. coli homologous system. Spermino relieved the inhibition of the reaction of thermophile enzyme and tRNA, but not the inhibition of the hybrid reactions. These results suggest that the branched polyamine interacts with both the thermophile enzyme and tRNAPhe.
ACCESSION NUMBER: 1994:528507 CAPLUS
DOCUMENT NUMBER: 121:128507
TITLE: Effects of unusual polyamines on phenylalanyl-tRNA formation
AUTHOR(S): Uzawa, Taketoshi; Yamagishi, Akihiko; Nishikawa, Kazuya; Oshima, Tairo
CORPORATE SOURCE: Dep. Life Sci., Tokyo Inst. Technol., Yokohama, 227, Japan
SOURCE: Journal of Biochemistry (Tokyo, Japan) (1994), 115(5), 830-2
CODEN: JOBIAO; ISSN: 0021-924X
DOCUMENT TYPE: Journal
LANGUAGE: English
IT 111216-37-6
RL: BIOL (Biological study)
(phenylalanyl-tRNA synthetase of Sulfolobus acidocaldarius and Thermus thermophilus inhibition by)
RN 111216-37-6 CAPLUS
CN 1-Propanaminium, 3-amino-N,N,N-tris(3-aminopropyl)- (9CI) (CA INDEX NAME)

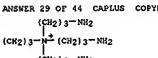


L22 ANSWER 28 OF 44 CAPLUS COPYRIGHT 2003 ACS on STN
AB A continuous cell-free protoin synthesis system of an extremely thermophilic subactorium, Thermus thermophilus HB27, was constructed. This system produced MS2 phage RNA translation products at a rate of more than 5 .mu.g per h per 1.9 mg of ribosomes at 65.degree.C, and tho prodn. continued linearly for at least 340 min. When no polyamine was added, the system did not produce the proteins. The highest activity was recorded when 0.1 mM tetrakis(3-aminopropyl)ammonium and 1.0 mM spermine were added simultaneously.
ACCESSION NUMBER: 1994:48250 CAPLUS
DOCUMENT NUMBER: 120:48250
TITLE: Effects of polyamines on a continuous cell-free protein synthesis system of an extreme thermophile, Thermus thermophilus
AUTHOR(S): Uzawa, Taketoshi; Yamagishi, Akihiko; Ueda, Takuya; Chikazumi, Nobutoshi; Watanabe, Kimitsuna; Oshima, Tairo
CORPORATE SOURCE: Dep. Life Sci., Tokyo Inst. Technol., Yokohama, 227, Japan
SOURCE: Journal of Biochemistry (Tokyo, Japan) (1993), 114(5), 732-4
CODEN: JOBIAO; ISSN: 0021-924X
DOCUMENT TYPE: Journal
LANGUAGE: English
IT 111216-37-6
RL: BIOL (Biological study)
(cell-free protein synthesis system of Thermus thermophilus response to)
RN 111216-37-6 CAPLUS
CN 1-Propanaminium, 3-amino-N,N,N-tris(3-aminopropyl)- (9CI) (CA INDEX NAME)



L22 ANSWER 29 OF 44 CAPLUS COPYRIGHT 2003 ACS on STN
AB Effects of novel, naturally occurring polyamines on protein synthesis catalyzed by T. thermophilus cell-free ext. were investigated. The results revealed the physiol. importance of a branched quaternary polyamine, tetrakis(3-aminopropyl) ammonium, in thermophile protein biosynthesis. Longer polyamines than triamine supported the polypeptide synthesis at high temp., though both the activity and the optimum temp. varied depending on polyamines added. The highest activity was found when tetrakis(3-aminopropyl)ammonium and a tetraamine were simultaneously present. The optimum temp. of the reaction supported by the combination of the branched polyamine and spermine was the highest and in accord with the optimum temp. of the bacterial growth. These results suggested an essential role of the quaternary amine in protein synthesis in vivo. This amine effectively stabilized the ternary complex between ribosomes, the messenger, and phenylalanyl-tRNA, and this stabilization may account, at least in part, for its action on the present reaction. In contrast, another branched polyamine, tris(3-aminopropyl)amine, supported the activity only moderately even in the presence of another polyamine, though the tris amine stabilized the ternary complex as effectively as the quaternary amine. This result suggests the presence of another essential site for polyamine action in the thermophile polypeptide synthesis, in addn. to the stabilization of the ternary complex. The effects of polyamines on MS2 RNA directed reaction resembled those on poly(U) directed polypeptide synthesis, indicating that polyamines are essential in protein biosynthesis directed by natural messengers in vivo. The quaternary amine inhibited the aminoacylation of tRNAPhe, and the inhibition was canceled by the addn. of another polyamine. When phenylalanyl-tRNA instead of free Phenylalanine was added to the reaction mixt. to investigate the effect of polyamines on polypeptide formation, single addn. of tetrakis(3-aminopropyl)ammonium was enough for the highest activity, and the synergistic effect disappeared. The results indicate that the role of spermine in the synergism is to relieve the inhibition of aminoacylation caused by the quaternary amine.
ACCESSION NUMBER: 1994:27169 CAPLUS
DOCUMENT NUMBER: 120:27169
TITLE: Effects of novel polyamines on cell-free polypeptide synthesis catalyzed by Thermus thermophilus HB8 extract
AUTHOR(S): Uzawa, TAketoshi; Namasaki, Nobuko; Oshima, Tairo
CORPORATE SOURCE: Dep. Life Sci., Tokyo Inst. Technol., Yokohama, 227, Japan
SOURCE: Journal of Biochemistry (Tokyo, Japan) (1993), 114(4), 478-86
CODEN: JOBIAO; ISSN: 0021-924X
DOCUMENT TYPE: Journal
LANGUAGE: English
IT 111216-37-6
RL: BIOL (Biological study)
(polypeptide formation by Thermus thermophilus cell-free ext. response to)
RN 111216-37-6 CAPLUS
CN 1-Propanaminium, 3-amino-N,N,N-tris(3-aminopropyl)- (9CI) (CA INDEX NAME)

L22 ANSWER 29 OF 44 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)

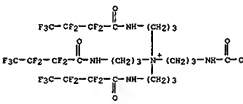


L22 ANSWER 30 OF 44 CAPLUS COPYRIGHT 2003 ACS on STN

AB Using heptafluorobutyryl derivs. of 27 linear di-, tri-, tetra-, penta- and hexamines contg. various sets of isomers, and 4 tertiary tetrasamines and 5 quaternary pentaamines, mostly with 3 or 4 methylene chain units, their gas chromatog. (GC) and gas chromatog.-mass spectrometric (GC-MS) properties were compared and exami... Several results useful for their systematic anal. were found: assured baseline sepn. of 1 methylene difference in linear di- and polyamines and tertiary tetraamines by GC; distinct pyrolytic decompn. patterns of quaternary pentaamines by GC; distinct cleavage patterns of 3 or 4 methylene chain units by GC-MS; and distinct mass spectra of linear polyamines and tertiary tetraamines by GC-MS.

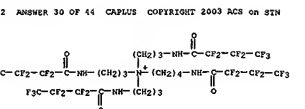
ACCESSION NUMBER: 1993:551383 CAPLUS
DOCUMENT NUMBER: 119:151383
TITLE: Systematic analysis of naturally occurring linear and branched polyamines by gas chromatography and gas chromatography-mass spectrometry
AUTHOR(S): Miitsu, Masaru; Samejima, Keijiro; Matsuzaki, Shigeru;
Hamana, Koei
CORPORATE SOURCE: Faculty of Pharmaceutical Sciences, Josai University, 1-1 Keyakidai, Sakado, Saitama, 350-02, Japan
SOURCE: Journal of Chromatography (1993), 641(1), 115-23
CODEN: JOCRAM; ISSN: 0021-9673
DOCUMENT TYPE: Journal
LANGUAGE: English
IT 149981-88-4 149981-89-5 149981-90-8
149981-91-9
RL: ANT (Analyte); ANST (Analytical study)
(gas chromatog. and mass spectrometry of)

RN 149981-88-4 CAPLUS
CN 1-Propanaminium, 3-[(2,2,3,3,4,4,4-heptafluoro-1-oxobutyl)amino]-N,N,N-tris[3-[(2,2,3,3,4,4,4-heptafluoro-1-oxobutyl)amino]propyl]- (9CI) (CA INDEX NAME)

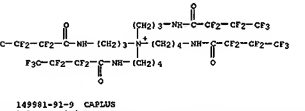


RN 149981-89-5 CAPLUS
CN 1-Butanaminium, 4-[(2,2,3,3,4,4,4-heptafluoro-1-oxobutyl)amino]-N,N,N-tris[3-[(2,2,3,3,4,4,4-heptafluoro-1-oxobutyl)amino]propyl]- (9CI) (CA INDEX NAME)

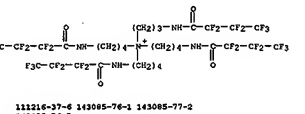
L22 ANSWER 30 OF 44 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)



RN 149981-90-8 CAPLUS
CN 1-Butanaminium, 4-[(2,2,3,3,4,4,4-heptafluoro-1-oxobutyl)amino]-N-[4-[(2,2,3,3,4,4,4-heptafluoro-1-oxobutyl)amino]butyl]-N,N-bis[3-[(2,2,3,3,4,4,4-heptafluoro-1-oxobutyl)amino]propyl]- (9CI) (CA INDEX NAME)

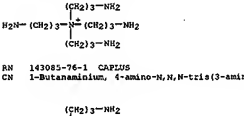


RN 149981-91-9 CAPLUS
CN 1-Butanaminium, 4-[(2,2,3,3,4,4,4-heptafluoro-1-oxobutyl)amino]-N,N-bis[4-[(2,2,3,3,4,4,4-heptafluoro-1-oxobutyl)amino]butyl]-N-[3-[(2,2,3,3,4,4,4-heptafluoro-1-oxobutyl)amino]propyl]- (9CI) (CA INDEX NAME)

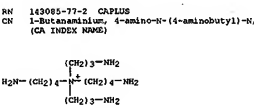


IT 111216-37-6 143085-76-1 143085-77-2
148275-76-7
RL: PRP (Properties); ANST (Analytical study)
(gas chromatog.-mass spectromstry of, as heptafluorobutyryl deriv.)
RN 111216-37-6 CAPLUS
CN 1-Propanaminium, 3-amino-N,N,N-tris(3-aminopropyl)- (9CI) (CA INDEX NAME)

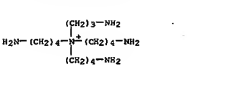
L22 ANSWER 30 OF 44 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)



RN 143085-76-1 CAPLUS
CN 1-Butanaminium, 4-amino-N,N,N-tris(3-aminopropyl)- (9CI) (CA INDEX NAME)



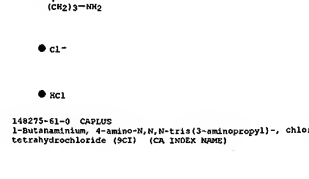
RN 143085-77-2 CAPLUS
CN 1-Butanaminium, 4-amino-N-(4-aminobutyl)-N,N-bis(3-aminopropyl)- (9CI) (CA INDEX NAME)



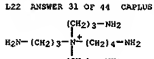
RN 148275-76-7 CAPLUS
CN 1-Butanaminium, 4-amino-N,N-bis(4-aminobutyl)-N-(3-aminopropyl)- (9CI) (CA INDEX NAME)

L22 ANSWER 31 OF 44 CAPLUS COPYRIGHT 2003 ACS on STN

AB Tertiary tetrasmines and quaternary pentaamines composed of aminopropyl and/or aminobutyl groups were synthesized as authentic samples for the identification of naturally occurring branched polyamines. Four tertiary tetraamines, including [H2N(CH2)n]3N.4HCl (n = 3, 4) and [H2N(CH2)3]2N(CH2)4NH2.HCl, were obtained by alkylating the free secondary
amine group of diphthaloyl derivs. of sym-norspermidine or sym-homospermidine with N-(3-bromopropyl)phthalimide or N-(4-bromobutyl)phthalimide in the presence of KF-Celite. Five quaternary
pentaamines, e.g., [H2N(CH2)n]4N+ Cl-.4HCl (n = 3, 4), were obtained by fusing triphthaloyl derivs. of the tertiary tetraamines with an excess amt. of N-(3-iodopropyl)phthalimide or N-(4-iodobutyl)phthalimide. The present methods are simple and achieved high yields. The 13C-NMR spectra of these branched polyamines were recorded in D2O as fully protonated forms, and all 13C chem. shifts were assigned consistently.
ACCESSION NUMBER: 1993:427654 CAPLUS
DOCUMENT NUMBER: 119:27654
TITLE: Syntheses of tertiary tetraamines and quaternary pentaamines with three and four methylene chain units
AUTHOR(S): Miitsu, Masaru; Sano, Hirao; Samejima, Keijiro
CORPORATE SOURCE: Fac. Pharm. Sci., Josai Univ., Sakado, 350-02, Japan
SOURCE: Chemical & Pharmaceutical Bulletin (1992), 40(11), 2958-61
CODEN: CPBTAL; ISSN: 0009-2363
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 119:27654
IT 148275-60-9P 148275-61-0P 148275-62-1P
148275-63-2P 148275-70-1P 148275-71-2P
148275-78-9P 148275-80-3P 148275-83-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 148275-60-9 CAPLUS
CN 1-Propanaminium, 3-amino-N,N,N-tris(3-aminopropyl)-, chloride, monohydrochloride (9CI) (CA INDEX NAME)



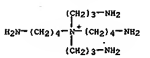
RN 148275-61-0 CAPLUS
CN 1-Butanaminium, 4-amino-N,N,N-tris(3-aminopropyl)-, chloride, tetrahydrochloride (9CI) (CA INDEX NAME)



● Cl⁻

●4 HCl

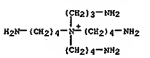
RN 148275-62-1 CAPLUS
CN 1-Butanaminium, 4-amino-N-(4-aminobutyl)-N,N-bis(3-aminopropyl)-, chloride, tetrahydrochloride (9CI) (CA INDEX NAME)



● Cl⁻

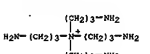
●4 HCl

RN 148275-63-2 CAPLUS
CN 1-Butanaminium, 4-amino-N,N-bis(4-aminobutyl)-N-(3-aminopropyl)-, chloride, tetrahydrochloride (9CI) (CA INDEX NAME)



● Cl⁻

●4 HCl



● Cl⁻

●9/2 HCl

RN 148275-78-9 CAPLUS
CN 1-Butanaminium, 4-amino-N,N-bis(4-aminobutyl)-N-(3-aminopropyl)-, perchlorate, tetraperchlorate (9CI) (CA INDEX NAME)

CM 1

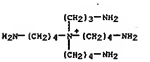
CRN 7601-90-3
CMF Cl H O4

CM 2

CRN 148275-77-8
CMF C15 H38 N5 . Cl O4

CM 3

CRN 148275-76-7
CMF C15 H38 N5



CM 4

CRN 14797-73-0
CMF Cl O4

RN 148275-70-1 CAPLUS
CN 1-Butanaminium, 4-amino-N,N,N-tris(3-aminopropyl)-, perchlorate, tetraperchlorate (9CI) (CA INDEX NAME)

CM 1

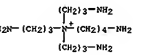
CRN 7601-90-3
CMF Cl H O4

CM 2

CRN 148275-69-8
CMF C13 H34 N5 . Cl O4

CM 3

CRN 143085-76-1
CMF C13 H34 N5



CM 4

CRN 14797-73-0
CMF Cl O4

RN 148275-71-2 CAPLUS
CN 1-Propanaminium, 3-amino-N,N,N-tris(3-aminopropyl)-, chloride, hydrochloride (2:3) (9CI) (CA INDEX NAME)

RN 148275-80-3 CAPLUS
CN 1-Butanaminium, 4-amino-N-(4-aminobutyl)-N,N-bis(3-aminopropyl)-, perchlorate, tetraperchlorate (9CI) (CA INDEX NAME)

CM 1

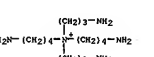
CRN 7601-90-3
CMF Cl H O4

CM 2

CRN 148275-79-0
CMF C14 H36 N5 . Cl O4

CM 3

CRN 143085-77-2
CMF C14 H36 N5



CM 4

CRN 14797-73-0
CMF Cl O4

RN 148275-85-8 CAPLUS
CN 1-Propanaminium, 3-amino-N,N,N-tris(3-aminopropyl)-, perchlorate,

L22 ANSWER 31 OF 44 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)
tetraperchlorate (9CI) (CA INDEX NAME)

CM 1

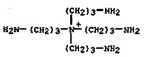
CRN 7601-90-3
CMF Cl H O4

CM 2

CRN 148275-84-7
CMF C12 H32 N5 . Cl O4

CM 3

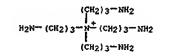
CRN 111216-37-6
CMF C12 H32 N5



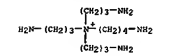
CM 4

CRN 14797-73-0
CMF Cl O4

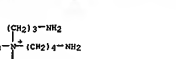
L22 ANSWER 32 OF 44 CAPLUS COPYRIGHT 2003 ACS on STN
AB Polyamines of thermophilic gram-neg. eubacteria, Rhodothermus marinus ATCC
43812, Thermus sp. ATCC 43814, and Thermonema lapsum ATCC 43542 were analyzed by HPLC and gas chromatog.-mass spectrometry. R. marinus contained spermidine, spermine, thermopentamine, a tertiary tetraamine (N4-aminopropylspermidine), and a quaternary pentaamine (N4-bis(aminopropyl)spermidine). Thermus sp. ATCC 43814 contained putrescine, cadaverine, norspermidine, spermidine, homospermidine, norspermine, spermine, thermospermine, aminopropylhomospermidine, caldopentamine, agmatine, 2 tertiary tetraamines (N4-aminopropylnorspermidine and N4-aminopropylspermidine), and 2 quaternary pentaamines (N4-bis(aminopropyl)norspermidine and N4-bis(aminopropyl)spermidine). Homospermidine and homospermine were detected in T. lapsum as the major polyamine. These distribution patterns
of long and branched polyamines are distinctive in the thermophiles, indicating that unusual polyamine profiles serve to est. chemotaxonomic and phylogenetic relations within thermophilic eubacteria.
ACCESSION NUMBER: 1993:251160 CAPLUS
DOCUMENT NUMBER: 118:251160
TITLE: Distribution of unusual long and branched polyamines in thermophilic eubacteria belonging to "Rhodothermus," Thermus and Thermonema
AUTHOR(S): Hamana, Koei; Hamana, Hiroshi; Niitsu, Masaru; Samejima, Keijiro; Matsuzaki, Sigeru
CORPORATE SOURCE: Coll. Med. Care Technol., Gunma Univ., Maebashi, 371, Japan
SOURCE: Journal of General and Applied Microbiology (1992), 38(6), 575-84
CODEN: JGAMA9; ISSN: 0022-1260
DOCUMENT TYPE: Journal
LANGUAGE: English
IT 111216-37-6 143085-76-1
RL: BIOL (Biological study)
(of thermophilic eubacteria)
RN 111216-37-6 CAPLUS
CN 1-Propanaminium, 3-amino-N,N,N-tris(3-aminopropyl)- (9CI) (CA INDEX NAME)



RN 143085-76-1 CAPLUS
CN 1-Butanaminium, 4-amino-N,N,N-tris(3-aminopropyl)- (9CI) (CA INDEX NAME)



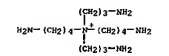
L22 ANSWER 33 OF 44 CAPLUS COPYRIGHT 2003 ACS on STN
AB Novel tertiary branched tetraamines, quaternary branched pentaamines, linear pentaesmines, and linear hexaamines were distributed as the major polyamines in 6 obligately extremely thermophilic eubacteria belonging to Thermoleophilum, Bacillus, or Hydrogenobacter. The major polyamine of T. album and T. minutum was identified as a quaternary branched pentaamine, 4,4-bis(3-aminopropyl)-1,8-diamino-4-azaoctane
(NH2[CH2]3N+([CH2]4NH2)2[CH2]3NH2) by HPLC, TLC, and gas chromatog.-mass spectrometry. H. thermophilus and H. halophilus contained another quaternary branched pentaamine, 4,4-bis(3-aminopropyl)-1,7-diamino-4-azaheptane as the major polyamine, and tertiary branched tetraamines (4-(3-aminopropyl)-1,7-diamino-4-azaheptane,
4-(3-aminopropyl)-1,8-diamino-
4-azaoctane, and 4,4-bis(3-aminopropyl)-1,8-diamino-4-azaoctane were confirmed as minor components. B. schlegelii contained a branched tetraamine, 4-(3-aminopropyl)-1,8-diamino-4-azaoctane, a branched pentaamine, 4,4-bis(3-aminopropyl)-1,8-diamino-4-azaoctane, a linear pentaamine, 1,16-diamino-4,8,13-triazahexadecane and linear hexaamine(s), 1,20-diamino-4,8,12,17-tetraazaeicosane and/or 1,20-diamino-4,8,13,17-tetraazaeicosane.
ACCESSION NUMBER: 1992:567247 CAPLUS
DOCUMENT NUMBER: 117:167247
TITLE: Novel linear and branched polyamines in the extremely thermophilic eubacteria Thermoleophilum, Bacillus and Hydrogenobacter
AUTHOR(S): Hamana, Koei; Niitsu, Masaru; Matsuzaki, Shigeru; Samejima, Keijiro; Igarashi, Yasuo; Kodama, Tohru
CORPORATE SOURCE: Coll. Med. Care Technol., Gunma Univ., Maebashi, 371, Japan
SOURCE: Biochemical Journal (1992), 284(3), 741-7
CODEN: BIJOAK; ISSN: 0306-3275
DOCUMENT TYPE: Journal
LANGUAGE: English
IT 111216-37-6 143085-76-1 143085-77-2
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)
(of thermophilic bacteria)
RN 111216-37-6 CAPLUS
CN 1-Propanaminium, 3-amino-N,N,N-tris(3-aminopropyl)- (9CI) (CA INDEX NAME)



RN 143085-76-1 CAPLUS
CN 1-Butanaminium, 4-amino-N,N,N-tris(3-aminopropyl)- (9CI) (CA INDEX NAME)

RN 143085-77-2 CAPLUS

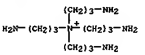
L22 ANSWER 33 OF 44 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)
CN 1-Butanaminium, 4-amino-N-(4-aminobutyl)-N,N-bis(3-aminopropyl)- (9CI)
(CA INDEX NAME)



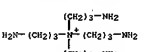
L22 ANSWER 34 OF 44 CAPLUS COPYRIGHT 2003 ACS on STN

AB The effect of unusual polyamines, such as thermine, caldopentamine, caldohexamine, tris(3-aminopropyl)amine, or tetrakis(3-aminopropyl)ammonium, on the activities of various restriction endonucleases was investigated by using an Escherichia coli plasmid as a substrate, which contains a high GC content fragment from an extreme thermophile. Restriction enzymes used were SmaI, BamII, NaeI, RsaI, and TaqI. Most of the polyamines tested were inhibitory to the enzyme activities. The larger and more branched a polyamine was, the more the activities of nucleases were inhibited. The inhibition was pos. correlated with the polyamine concn. The sites protected by a polyamine were identical to those protected by other polyamines, and also identical to those which were less sensitive to the restriction enzyme in the absence of polyamines. No sequence specificity was seen among these sites.

ACCESSION NUMBER: 1990:473586 CAPLUS
DOCUMENT NUMBER: 113:73586
TITLE: Effect of unusual polyamines on the cleavage of DNA by restriction enzymes
AUTHOR(S): Mizino, Hiromi; Kuwahara, Reiko; Hamasaki, Nobuko; Oshima, Tairo
CORPORATE SOURCE: Dep. Life Sci., Tokyo Inst. Technol., Yokohama, 227, Japan
SOURCE: Journal of Biochemistry (Tokyo, Japan) (1990), 107(5), 661-5
CODEN: JOBIAO; ISSN: 0021-924X
DOCUMENT TYPE: Journal
LANGUAGE: English
IT 111216-37-6
RL: BIOL (Biological study)
(restriction endodeoxyribonucleases inhibition by)
RN 111216-37-6 CAPLUS
CN 1-Propanaminium, 3-amino-N,N,N-tris(3-aminopropyl)- (9CI) (CA INDEX NAME)



L22 ANSWER 35 OF 44 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)



● Cl-

●4 HCl

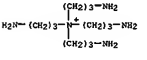
L22 ANSWER 35 OF 44 CAPLUS COPYRIGHT 2003 ACS on STN

AB N+(CH2CH2CH2NH2)4 (I) salts, useful as pharmaceuticals (no data), are prepd. N(CH2CH2CONH2)3 in THF was reduced with LiAlH4 at room temp. and resultant material in aq. HCl was passed through a column of Dowex-50W to give N(CH2CH2CH2NH2)3.HCl which was reacted with phthalic anhydride in NaOAc at 290.degree. to give 69% tris(3-phthalimidopropyl)amine (IV). Sep. prepd. N-(3-iodopropyl)phthalimide was refluxed with IV in dioxane for 3 h to give 71% tetrakis(3-phthalimidopropyl)ammonium iodide which was reduced with H2NNH2.H2O in EtOH by refluxing 2 h and the resulting material was treated with 6 N aq. HCl to give 47% quaternary ammonium salt I Cl-.

ACCESSION NUMBER: 1989:74818 CAPLUS
DOCUMENT NUMBER: 110:74818
TITLE: Preparation of tetrakis(3-aminopropyl)ammonium salts as pharmaceuticals
INVENTOR(S): Oshima, Yasuo; Hamazaki, Nobuko; Kakinuma, Katsumi; Kuwajima, Isao
PATENT ASSIGNEE(S): Mitsubishi Kasei Corp., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 17 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 63183547	A2	19880728	JP 1987-13623	19870123

PRIORITY APPLN. INFO.: JP 1987-13623 19870123
IT 118787-05-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and reaction of, with hydrochloric acid)
RN 118787-05-6 CAPLUS
CN 1-Propanaminium, 3-amino-N,N,N-tris(3-aminopropyl)-, iodide (9CI) (CA INDEX NAME)



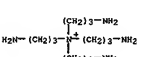
● I-

IT 118787-04-5P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of, as pharmaceutical)
RN 118787-04-5 CAPLUS
CN 1-Propanaminium, 3-amino-N,N,N-tris(3-aminopropyl)-, chloride, tetrahydrochloride (9CI) (CA INDEX NAME)

L22 ANSWER 36 OF 44 CAPLUS COPYRIGHT 2003 ACS on STN

AB A new polyamine, tetrakis(3-aminopropyl)ammonium, N+(CH2CH2CH2NH2)4, was identified in cells of an extreme thermophile, T. thermophilus. This compd. was chem. synthesized and its chem. properties were coincident with those of the amine isolated from the thermophile.

ACCESSION NUMBER: 1987:614536 CAPLUS
DOCUMENT NUMBER: 107:214536
TITLE: A new naturally occurring polyamine containing a quaternary ammonium nitrogen
AUTHOR(S): Oshima, Tairo; Hamasaki, Nobuko; Senshu, Mitsuko; Kakinuma, Katsumi; Kuwajima, Isao
CORPORATE SOURCE: Dep. Life Sci., Tokyo Inst. Technol., Yokohama, 227, Japan
SOURCE: Journal of Biological Chemistry (1987), 262(25), 11979-81
CODEN: JBCHA3; ISSN: 0021-9258
DOCUMENT TYPE: Journal
LANGUAGE: English
IT 111216-37-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(of Thermus thermophilus, purifn. and properties of, chem. prepn. in relation to)
RN 111216-37-6 CAPLUS
CN 1-Propanaminium, 3-amino-N,N,N-tris(3-aminopropyl)- (9CI) (CA INDEX NAME)



L22 ANSWER 37 OF 44 CAPLUS COPYRIGHT 2003 ACS on STN

AB The agents suitable for breaking all cation active asphalt emulsions contain 30-99% H2O and/or Cl-3 alcs. and the polyamine Me sulfates [RNHMeCH2CH2CH2NH2Me].(MeSO4)2 (I) [91038-06-1], [RNHMeCH2CH2CH2NHMeCH2CH2CH2NHR2Me].(MeSO4)3 [91038-08-3], [(MeNHCH2CH2CH2CH2)2NMeR].(MeSO4)3 [91038-11-8], [MeNH2CH2CH2CH2NHMeCH2CH2CH2NHMeCH2CH2CH2NH2Me]2].(MeSO4)4 [91038-14-1], [RNHMeCH2CH2CH2NMe(CH2CH2CH2NHR2Me)2].(MeSO4)4 [91038-18-8], or [MeNH2CH2CH2CH2NMeCH2CH2CH2NMe(CH2CH2CH2NH2Me)2].(MeSO4)5 [91038-17-4], where R = n-C18H37. The agents are used in construction, repair, and maintenance of roads and airport runways. Thus, 100 g aggregatea (grain size .ltoreq.5 mm), contg. 60% basalt and 40% quartz sand, was wetted with 15 mL water contg. 0.2 g agent from 30% I and 70% water, 18 mL 60% asphalt emulsion prepd. by using 0.4% octadecyltripropylenetetramine as an emulsifier, was added, and the emulsion was broken within 60 s.

ACCESSION NUMBER: 1984:459247 CAPLUS
DOCUMENT NUMBER: 101:59247
TITLE: Agent for controlling time of breaking of cation-active asphalt emulsions
INVENTOR(S): Volf, Jiri; Pasek, Josef; Repkova, Mariana; Machytka, Vladimir; Ruzicka, Jaroslav; Vacek, Antonin
PATENT ASSIGNEE(S): Czech.
SOURCE: Czech., 4 pp.
CODEN: CZXXA9
DOCUMENT TYPE: Patent
LANGUAGE: Czech
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CS 207430	B	19810731	CS 1979-4824	19790710

PRIORITY APPLN. INFO.: CS 1979-4824 19790710

IT 91038-17-4 91108-18-8
RL: USES (Uses)
(emulsion breaking agents, for paving asphalt)

RN 91038-17-4 CAPLUS
CN 1,3-Propanediaminium, N,N'-dimethyl-N,N,N'-tris[3-(methylamino)propyl]-N'-octadecyl-, bis(methyl sulfate), tris(methyl sulfate) (9CI) (CA INDEX NAME)

CM 1

CRN 75-93-4
CMF C H4 O4 S

CM 2

L22 ANSWER 37 OF 44 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)

CRN 91038-16-3
CMF C35 H79 N5 . 2 C H3 O4 S

CM 3

CRN 91038-15-2
CMF C35 H79 N5

CM 4

CRN 21228-90-0
CMF C H3 O4 S

RN 91108-18-8 CAPLUS
CN 1-Propanaminium, N-methyl-N,N-bis[3-(methylamino)propyl]-3-(methyloctadecylamino)-, methyl sulfate, tris(methyl sulfate) (9CI) (CA INDEX NAME)

CM 1

CRN 75-93-4
CMF C H4 O4 S

CM 2

CRN 91108-17-7
CMF C31 H69 N4 . C H3 O4 S

CM 3

CRN 91108-16-6
CMF C31 H69 N4

L22 ANSWER 37 OF 44 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)

CM 4

CRN 21228-90-0
CMF C H3 O4 S

L22 ANSWER 38 OF 44 CAPLUS COPYRIGHT 2003 ACS on STN

AB Oil- or water-sol. RlCONH(CH2)nSN+R2R3R4 X- [R1 = C5-22 alkyl; R2, R3 = C12-18 alkyl, (CH2)pCONH2, (CH2)qOH, (CH2CH2O)xH, (CH2)2 CONHCH2OH, or CH2CH=CHCONH2; R4 = (CH2)nX; Z = direct bond, (CH2NR5(CH2)2]m, [(CH2)nNR5(CH2)3]m; R5 = Et, Me, (CH2)2CONH2, CH2CH=CHCONH2, or (CH2)2CONHCH2OH; X = Cl, Br, I; m = 1-6, p = 3-6, q = 1, 2, x + y = 2-10, n = 2-12) surfactants, useful as antistatic agents, are manuf. by quaternization of the corresponding alkanamidoalkylamines with dihalo alkanes in polar solvents at 80-100.degree./1-2 atm under an inert gas in the presence of strongly basic catalysts. Thus, a 1:1.4 (mol. ratio) lauric acid [143-07-7]-diethylenetriamine [111-40-0] mixt. in 150 parts PhMe was refluxed 2 h while the water bi-product was distd. and then reacted an addnl. 4 h to give N-(2-undecanamidoethyl)ethylenediamine (I) [45244-49-3]. Acrylamide [79-06-1] (145 parts) was reacted with 275 parts I conc. 10-15% PhMe in the presence of 11 MeONa 4 h at 80-95.degree., and the reaction mixt. was further reacted with 2 mols HCO2H and 2 mols HCHO [50-00-0] (47% soln.) for 4 h in the presence of 15% EtOH to give C11H23CONH(CH2)2NMe(CH2)2N[(CH2)2CONH2]2 (II) [87683-95-2]. A 1:4 (mol ratio) II-1,2-dichloroethane [107-06-2] mixt. was heated 5 h at 80.degree. in the presence of 1% NaOH to give water-sol. [C11H23CONH(CH2)2NMe[(CH2)2Cl](CH2)2N[(CH2)2Cl](CH2)2CONH2]2+ 2 Cl- [87683-94-1], which imparted antistatic properties and good hand to textiles.

ACCESSION NUMBER: 1983:577868 CAPLUS
DOCUMENT NUMBER: 99:177868
TITLE: Quaternary alkanamidoalkylammonium salts
INVENTOR(S): Cretu, Steliana; Avram, Radu; Tomescu, Margareta; Tepes, Gheorghe
PATENT ASSIGNEE(S): Combinatul de Fire si Fibre Sintetice, Savinesti, Rom.
SOURCE: Rom., 4 pp.
CODEN: RUXXA3
DOCUMENT TYPE: Patent
LANGUAGE: Romanian
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

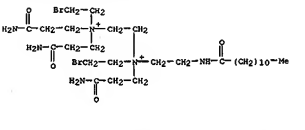
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
RO 78017	B	19820201	RO 1979-99411	19791201

PRIORITY APPLN. INFO.: RO 1979-99411 19791201

IT 87683-89-4P
RL: TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(surfactants, manuf. of)

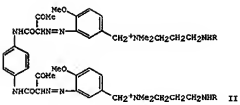
RN 87683-89-4 CAPLUS
CN 1,2-Ethanediaminium, N,N,N'-tris(3-amino-3-oxopropyl)-N,N'-bis[2-bromoethyl)-N,N'-[2-[(1-oxododecyl)amino]ethyl]-, dibromide (9CI) (CA INDEX NAME)

L22 ANSWER 38 OF 44 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)



●2 Br⁻

L22 ANSWER 39 OF 44 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)



II

AB A large no. of mono- and disazo dyes contg. quaternary ammonium groups, e.g. (aminoalkyl)ammonio, [(acylamino)alkyl]ammonio, and (ammonioalkyl)amino, were prepd. Many of these dyes showed good bleed resistance when used as paper dyes and were readily bleachable by hypochlorite. Thus, 3,4-H2N(MeO)C6H3CH2N+Me2CH2CH2CH2NCHO (I) [38901-93-8] was diazotized and coupled with p-C6H4(NHCOCH2COMe)2 [24731-73-5] to give II (R = CHO) [38901-94-9], a water-sol. yellow dye which bled only slightly in the water- and soap-bleed tests on paper and also was easily bleached after being applied to paper. Its hydrolysis product, II (R = H) [38901-95-0], showed essentially the same bleachability but had superior bleed resistance. The prepn. of II and many similar cationic arom. amino compds. is described.

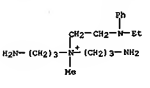
ACCESSION NUMBER: 1979:105604 CAPLUS
DOCUMENT NUMBER: 90:105604
TITLE: Water-soluble quaternary ammonium nonheterocyclic azo dyes
INVENTOR(S): Jefferies, Patrick J.; Crounse, Nathan N.
PATENT ASSIGNEE(S): Sterling Drug Inc., USA
SOURCE: U.S., 83 pp. Cont.-in-part of U.S. 3,935,182.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 9
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4103092	A	19780725	US 1975-595864	19750714
US 3709903	A	19730109	US 1970-51676	19700701
US 3839426	A	19741001	US 1970-51690	19700701
GB 1333837	A	19731017	GB 1971-29451	19710622
CA 940528	A1	19740122	CA 1971-116474	19710623
US 3784599	A	19740108	US 1971-201153	19711122
US 3935182	A	19760127	US 1973-332511	19730214
CA 940121	A2	19740115	CA 1973-163853	19730216
US 3996282	A	19761207	US 1974-486180	19740705
US 4065500	A	19771227	US 1976-672428	19760331
US 4166558	A	19790327	US 1977-839975	19771006
US 4206144	A	19800603	US 1978-963031	19781122
PRIORITY APPLN. INFO.:			US 1966-551868	19660523
			US 1968-777884	19681121

L22 ANSWER 39 OF 44 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)

	US 1970-51676	19700701
	US 1970-51690	19700701
	US 1971-201153	19711122
	US 1973-332511	19730214
	US 1974-486180	19740705
	US 1966-551868	19660304
	CA 1969-65436	19691021
	US 1970-51673	19700701
	US 1975-595864	19750714
	US 1976-672428	19760331
	US 1976-672482	19760331
	US 1977-839975	19771006

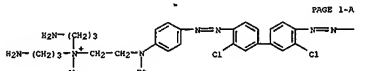
IT 68837-99-0
RL: RCT (Reactant); RACT (Reactant or reagent)
(coupling of, with tetrazotized bis(aminochlorophenyl) disulfide)
RN 68837-99-0 CAPLUS
CN 1-Propanaminium, 3-amino-N-(3-aminopropyl)-N-[2-(ethylphenylamino)ethyl]-N-methyl-, chloride (9CI) (CA INDEX NAME)



● Cl⁻

RL: RCT (Reactant); RACT (Reactant or reagent)
(coupling of, with tetrazotized o-tolidine
IT 66755-02-0P 66755-07-5P 68838-00-6P
68849-72-9P
RL: IMF (Industrial manufacture); PREP (Preparation)
(prepn. of)
RN 66755-02-0 CAPLUS
CN 1-Propanaminium, N,N'-[(3,3'-dichloro[1,1'-biphenyl]-4,4'-diyl)bis[azo-4,1-phenylene(ethylimino)-2,1-ethanediyl]]bis[3-amino-N-(3-aminopropyl)-N-methyl-, dichloride (9CI) (CA INDEX NAME)

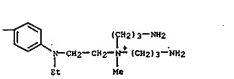
PAGE 1-A



●2 Cl⁻

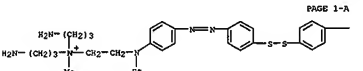
L22 ANSWER 39 OF 44 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)

PAGE 1-B



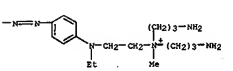
RN 66755-07-5 CAPLUS
CN 1-Propanaminium, N,N'-(dithiobis[4,1-phenyleneazo-4,1-phenylene(ethylimino)-2,1-ethanediyl]]bis[N,N-bis(3-aminopropyl)-N-methyl-, dichloride (9CI) (CA INDEX NAME)

PAGE 1-A



●2 Cl⁻

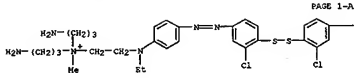
PAGE 1-B



RN 68838-00-6 CAPLUS
CN 1-Propanaminium, N,N'-[dithiobis[(3-chloro-4,1-phenylene)azo-4,1-phenylene(ethylimino)-2,1-ethanediyl]]bis[3-amino-N-(3-aminopropyl)-N-methyl-, dichloride (9CI) (CA INDEX NAME)

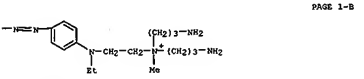
L22 ANSWER 39 OF 44 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)

PAGE 1-A



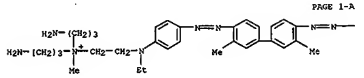
●2 Cl⁻

PAGE 1-B



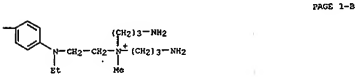
RN 68849-72-9 CAPLUS
CN 1-Propanaminium, N,N'-[(3,3'-dimethyl[1,1'-biphenyl]-4,4'-diyl)bis[azo-4,1-phenylene(ethylimino)-2,1-ethanediyl]]bis[3-amino-N-[3-aminopropyl]-N-methyl-, chloride (9CI) (CA INDEX NAME)

PAGE 1-A



● Cl⁻

PAGE 1-B



L22 ANSWER 40 OF 44 CAPLUS COPYRIGHT 2003 ACS on STN

AB Same derivs. of poly[(methylimino)trimethylene) were prepd. after polymn. of 5,6-dihydro-4H-1,3-oxazine. The ionine polymers prepd. are proposed to

be anticholesteremic agents after oral administration.

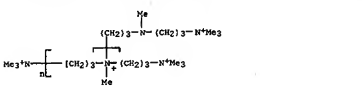
ACCESSION NUMBER:	1979:97720 CAPLUS
DOCUMENT NUMBER:	90:97720
TITLE:	Poly[(alkyl-[3-ammoniopropyl-]iminio)trimethylene dihalides]
INVENTOR(S):	Wagner, Arthur F.; Grier, Nathaniel; Shen, Tsung-Ying
PATENT ASSIGNEE(S):	Merck and Co., Inc., USA
SOURCE:	U.S., 16 pp. Cont.-in-part of U.S. 4,016,209. CODEN: USXXAM
DOCUMENT TYPE:	Patent
LANGUAGE:	English
FAMILY ACC. NUM. COUNT:	6

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4098726	A	19780704	US 1977-783886	19770401
RO 72993	P	19820510	RO 1974-87339	19740608
BE 816132	A1	19741210	BE 1974-145254	19740610
ZA 7403670	A	19760128	ZA 1974-3670	19740610
SU 561516	D	19770605	SU 1974-2035701	19740610
PL 106910	P	19800131	PL 1974-171804	19740610
US 4016209	A	19770405	US 1975-570910	19750423
GB 1539006	A	19790124	GB 1977-43741	19760415
SU 727150	D	19800405	SU 1976-2408605	19760928
US 4205064	A	19800527	US 1979-28955	19790411
US 4217429	A	19800812	US 1979-28954	19790411
CA 1087632	A2	19801014	CA 1979-340242	19791120
PRIORITY APPLN. INFO.:			US 1973-369042	19730611
			US 1974-462263	19740419
			US 1975-570910	19750423
			US 1974-462223	19740419
			CA 1976-250746	19760414
			GB 1976-15642	19760415
			US 1977-783886	19770401
			US 1978-895908	19780413
			US 1978-956472	19781030

IT 68628-44-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, as anticholesteremic agent)
RN 68628-44-4 CAPLUS
CN Poly[[methyl[3-[trimethylammonio)propyl]iminio]-1,3-propanediyl dichloride), .alpha.-[3-[methyl[(trimethylammonio)propyl]amino]propyl]-.omega.-(trimethylammonio)-, dichloride (9CI) (CA INDEX NAME)

L22 ANSWER 40 OF 44 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)



●4 Cl⁻

L22 ANSWER 41 OF 44 CAPLUS COPYRIGHT 2003 ACS on STN

GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Approx. 100 cationic water-sol. azo and disazo dyes for paper were prepd. which had good bleachability and good bleed-fastness properties. The dyes

were prepd. by conventional azo coupling techniques and the prepn. of intermediates was extensively described. Representative of the dyes prepd. are: I [R = R1) [38901-94-9], II [40948-99-0), and III [66755-16-6].

ACCESSION NUMBER:	1978:512303 CAPLUS
DOCUMENT NUMBER:	89:112303
TITLE:	Water-soluble quaternary ammonium dyes
INVENTOR(S):	Jefferies, Patrick J.; Crounse, Nathan N.
PATENT ASSIGNEE(S):	Sterling Drug Inc., USA
SOURCE:	U.S., 77 pp. Continuation-in-part of U.S. 3,839,426. CODEN: USXXAM
DOCUMENT TYPE:	Patent
LANGUAGE:	English
FAMILY ACC. NUM. COUNT:	9

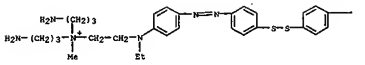
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3996282	A	19761207	US 1974-486180	19740705
US 3709903	A	19730109	US 1970-51676	19700701
US 3839426	A	19741001	US 1970-51690	19700701
GB 1339837	A	19731017	GB 1971-29451	19710622
CA 940528	A1	19740122	CA 1971-116479	19710623
US 3784599	A	19740108	US 1971-201153	19711122
US 3932182	A	19760127	US 1973-332511	19730214
CA 940121	A2	19740115	CA 1973-163853	19730216
US 4103092	A	19780725	US 1975-595864	19750714
US 4065500	A	19771227	US 1976-672428	19760331
US 4146558	A	19790327	US 1977-839975	19771006
US 4206144	A	19800603	US 1978-963031	19781122
PRIORITY APPLN. INFO.:			US 1966-551868	19660523
			US 1968-777884	19681121
			US 1970-51676	19700701
			US 1970-51690	19700701
			US 1971-201153	19711122
			US 1973-332511	19730214
			US 1966-551868	19660304
			CA 1969-65436	19691021
			US 1970-51673	19700701
			US 1974-486180	19740705
			US 1975-595864	19750714
			US 1976-672428	19760331
			US 1976-672482	19760331
			US 1977-839975	19771006

IT 66755-07-5P
RL: IMF (Industrial manufacture); PREP (Preparation)
(dye, prepn. of)
RN 66755-07-5 CAPLUS
CN 1-Propanaminium, N,N'-(dithiobis[4,1-phenyleneazo-4,1-phenylene(ethylimino)-2,1-ethanediyl]]bis[N,N-bis[3-aminopropyl)-N-methyl-

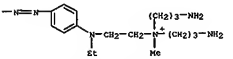
, dichloride (9CI) (CA INDEX NAME)

PAGE 1-A



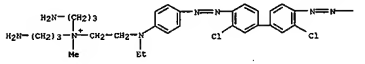
●2 Cl⁻

PAGE 1-B



IT 66755-02-0P 66755-03-1P
RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation)
(prepn. and spectrum of)
RN 66755-02-0 CAPLUS
CN 1-Propanaminium,
N,N'-[(3,3'-dichloro[1,1'-biphenyl]-4,4'-diyl)bis[azo-4,1-
phenylene(ethylimino)-2,1-ethanediyl]]bis[3-amino-N-(3-aminopropyl)-N-
methyl-, dichloride (9CI) (CA INDEX NAME)

PAGE 1-A



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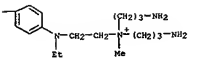
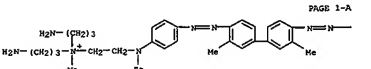
PAGE 1-B



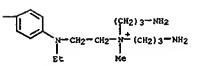
RN 66755-03-1 CAPLUS
CN 1-Propanaminium,
N,N'-[(3,3'-dimethyl[1,1'-biphenyl]-4,4'-diyl)bis[azo-4,1-
phenylene(ethylimino)-2,1-ethanediyl]]bis[3-amino-N-(3-aminopropyl)-N-
methyl-, dichloride (9CI) (CA INDEX NAMES)

PAGE 1-A

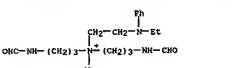


●2 Cl⁻

PAGE 1-B

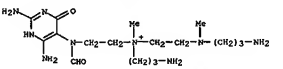


IT 66754-66-2P
RL: IMF (Industrial manufacture); PREP (Preparation)
(prepn. of)
RN 66754-66-2 CAPLUS
CN 1-Propanaminium, N-[2-(ethylphenylamino)ethyl]-3-(formylamino)-N-[3-
(formylamino)propyl]-N-methyl-, chloride (9CI) (CA INDEX NAME)



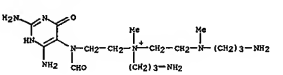
● Cl⁻

L22 ANSWER 42 OF 44 CAPLUS COPYRIGHT 2003 ACS on STN
GI For diagram(s), see printed CA Issue.
AB N-(2-Chloroethyl)-N-methyl-1,3-propanediamine (I) alkylated guanosine and guanine in transfer-ribonucleic acid, to give 10% 7-[.beta.-(N-3-aminopropyl-N-methylamino)ethyl]guanosine (II). Similar alkylation of guanosine by excess II was accompanied by quaternization of substituted tertiary amino groups to yield guanosine (III). Hydrolysis of II by acid gave 15% of the corresponding guanine deriv.; base hydrolysis of II gave ribofuranosyl deriv. (IV).
ACCESSION NUMBER: 1973:405527 CAPLUS
DOCUMENT NUMBER: 79:5527
TITLE: Alkylation of nucleic acids and their components. V. Reaction of N-.beta.-chloroethyl-N-methylpropylene-1,3-diamine with guanosine and transport RNA
AUTHOR(S): Grineva, N. I.; Lomakina, T. S.
CORPORATE SOURCE: Inst. Org. Khim., Novosibirsk, USSR
SOURCE: Khimiya Geterotsiklicheskikh Soedinenii (1973), (3), 407-12
CODEN: KGSSAQ; ISSN: 0132-6244
DOCUMENT TYPE: Journal
LANGUAGE: Russian
IT 42216-07-9P 50408-33-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 42216-07-9 CAPLUS
CN 1-Propanaminium, 3-amino-N-[2-[(3-aminopropyl)methylamino]ethyl]-N-[2-[(2,6-diamino-1,4-dihydro-4-oxo-5-pyrimidinyl)formylamino]ethyl]-N-methyl-, pentahydrochloride (9CI) (CA INDEX NAMES)



●5 HCl

RN 50408-33-8 CAPLUS
CN 1-Propanaminium, 3-amino-N-[2-[(3-aminopropyl)methylamino]ethyl]-N-[2-[(2,6-diamino-1,4-dihydro-4-oxo-5-pyrimidinyl)formylamino]ethyl]-N-methyl-, (9CI) (CA INDEX NAMES)



L22 ANSWER 42 OF 44 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)

L22 ANSWER 43 OF 44 CAPLUS COPYRIGHT 2003 ACS on STN

AB Stearic acid (I), behenic acid, or oleic acid is condensed with dipropylenetriamine (II) or diethylenetriamine, treated with propylene oxide (III), with acrylamide, or with HCHO and HCO2H, and then treated with Cl(CH2)4Cl, dichlorodiethyl ether, Br(CH2)10Br, or p-xylylene dichloride to prep. quaternary amines useful as softeners for cotton, polyamide, polyester, and other textiles and for paper. In 2 cases, the quaternary amines are treated with Na pentachlorophenolate or methylenebis(chlorophenol) to prep. antimicrobial softeners. Thus, 1620 parts I is condensed at 200.deg. with 393 parts II, treated (250 parts) with 30 parts III during 5 hr at 90.deg., and treated (70 parts) with 19 parts Cl(CH2)4Cl during 30 min at 150.deg. to prep. a softener for cotton textiles.

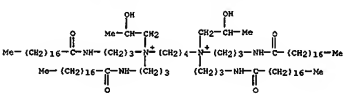
ACCESSION NUMBER: 1972:490405 CAPLUS
DOCUMENT NUMBER: 77:90405
TITLE: Polyamide ammonium compounds for finishing textiles
INVENTOR(S): Hochreuter, Richard
PATENT ASSIGNEE(S): Sandoz Ltd.
SOURCE: Ger. Offen., 32 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2150225	A	19720608	DE 1971-2150225	19711008
CH 553150	A	19740830	CH 1970-14902	19701009
US 3793352	A	19740219	US 1971-186507	19711004
AU 7134293	A1	19730412	AU 1971-34293	19711006
ES 395812	A1	19741016	ES 1971-395812	19711007
GB 1377216	A	19741211	GB 1971-46765	19711007
FR 2111168	A5	19720602	FR 1971-36303	19711008
IT 945769	A	19730510	IT 1971-70303	19711008

PRIORITY APPLN. INFO.: CH 1970-14902 19701009

IT 38471-55-5 38471-56-6 38471-57-7 38471-95-3
RL: USES (Uses)
(softening agents, for textiles)

RN 38471-55-5 CAPLUS
CN 1,4-Butanediaminium, N,N'-bis(2-hydroxypropyl)-N,N,N',N'-tetrakis[3-[(1-oxooctadecyl)amino]propyl]-, dichloride (9CI) (CA INDEX NAME)

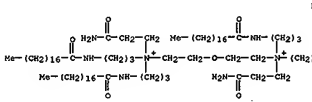


●2 Cl⁻

L22 ANSWER 43 OF 44 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)

RN 38471-56-6 CAPLUS
CN 1-Propanaminium, N,N'-(oxydi-2,1-ethanediyl)bis[3-amino-3-oxo-N,N-bis[3-[(1-oxooctadecyl)amino]propyl]-, dichloride (9CI) (CA INDEX NAME)

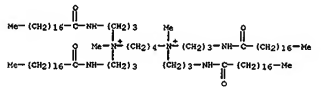
PAGE 1-A



●2 Cl⁻

PAGE 1-B

RN 38471-57-7 CAPLUS
CN 1,4-Butanediaminium, N,N'-dimethyl-N,N,N',N'-tetrakis[3-[(1-oxooctadecyl)amino]propyl]-, dichloride (9CI) (CA INDEX NAME)



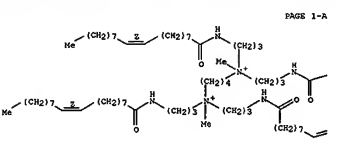
●2 Cl⁻

RN 38471-95-3 CAPLUS
CN 1,4-Butanediaminium, N,N'-dimethyl-N,N,N',N'-tetrakis[3-[(1-oxo-9-octadecenyl)amino]propyl]-, dichloride, (all-Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

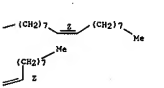
L22 ANSWER 43 OF 44 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)

PAGE 1-A



●2 Cl⁻

PAGE 1-B

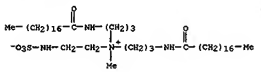


L22 ANSWER 44 OF 44 CAPLUS COPYRIGHT 2003 ACS on STN
AB R2R1N+CH2CH2NHX- (I; R, R1 = H, alkyl; X = SO2, SO3) were prepd. by reaction of NR2R1-SO2 or NR2R1-SO3 addn. compds. with aziridine. Thus, 32
parts SO2 was passed into a soln. contg. 36.5 parts BuNH2 in 150 parts C6H6 at 20-5.degree. and 21.5 part aziridine added slowly at 30-40.degree.
to give 63.3% I (R = H, R1 = Bu, X = SO2). Similarly prepd. were 17 other
I.

ACCESSION NUMBER: 1971:509827 CAPLUS
DOCUMENT NUMBER: 75:109827
TITLE: Ammonium betaines
INVENTOR(S): Distler, Harry; Widder, Rudi
PATENT ASSIGNEE(S): Badische Anilin- und Soda-Fabrik A.-G.
SOURCE: Ger. Offen., 15 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 1963399	A	19710624	DE 1969-1963399	19691218
US 3741998	A	19730626	US 1970-96270	19701208
NL 7018343	A	19710622	NL 1970-18343	19701216
FR 2073824	A5	19711001	FR 1970-45308	19701216
JP 48037019	B4	19731108	JP 1970-113159	19701218

PRIORITY APPLN. INFO.: DE 1969-1963399 19691218
IT 32797-22-1P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 32797-22-1 CAPLUS
CN Ammonium, methylbis(3-stearamidopropyl)[2-(sulfoamino)ethyl]-, hydroxide, inner salt (8CI) (CA INDEX NAME)



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FULL ESTIMATED COST                                   203.34     941.36

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)          SINCE FILE      TOTAL
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CA SUBSCRIBER PRICE                                   -28.64     -48.17

FILE 'REGISTRY' ENTERED AT 14:55:28 ON 24 DEC 2003
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DICTIONARY FILE UPDATES:  23 DEC 2003  HIGHEST RN 630084-36-5

TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2003

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information enter HELP PROP at an arrow prompt in the file or refer
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http://www.cas.org/ONLINE/DBSS/registryss.html

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L23                STR
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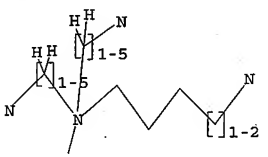


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Structure attributes must be viewed using STN Express query preparation.


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SAMPLE SCREEN SEARCH COMPLETED -   4621 TO ITERATE

 21.6% PROCESSED    1000 ITERATIONS                          0 ANSWERS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.01
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FULL FILE PROJECTIONS:  ONLINE   **COMPLETE**
                        BATCH    **COMPLETE**
PROJECTED ITERATIONS:          88345 TO     96495
PROJECTED ANSWERS:                 0 TO         0

L24            0 SEA SSS SAM L23

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FULL SCREEN SEARCH COMPLETED -  92038 TO ITERATE

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SEARCH TIME: 00.00.03

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                                                        ENTRY    SESSION
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                                                        ENTRY    SESSION
CA SUBSCRIBER PRICE                                       0.00     -48.17

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FILE COVERS 1907 - 24 Dec 2003  VOL 139 ISS 26
FILE LAST UPDATED: 23 Dec 2003  (20031223/ED)

  This file contains CAS Registry Numbers for easy and accurate
  substance identification.


=> s l25
L26           19 L25

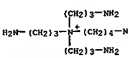
=> d l26 1-19 abs ibib hitstr
```

L26 ANSWER 1 OF 19 CAPLUS COPYRIGHT 2003 ACS on STN
AB A plant protection formulation contains at least one Cu2+-contg. compd. as
an active ingredient, characterized in that the active ingredient comprises an amt. of at least one chelate of Cu2+ with a polyamine compd.

ACCESSION NUMBER: 2003:715744 CAPLUS
DOCUMENT NUMBER: 139:241667
TITLE: Plant protection formulation containing a copper-polyamine chelate
INVENTOR(S): Camerlynck, Rudiger; De Potter, Pierre
PATENT ASSIGNEE(S): BMS Micro-Nutrients N. V., Belg.
SOURCE: Eur. Pat. Appl., 14 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1342413	A1	20030910	EP 2002-447035	20020308
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
PRIORITY APPLN. INFO.:			EP 2002-447035	20020308

IT 143085-76-1D, copper chelates
RL: AGR (Agricultural use); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)
(plant protection formulation contg.)
RN 143085-76-1 CAPLUS
CN 1-Butanaminium, 4-amino-N,N,N-tris(3-aminopropyl)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE
FORMAT

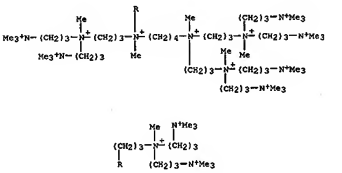
L26 ANSWER 2 OF 19 CAPLUS COPYRIGHT 2003 ACS on STN
AB Poly(propylene imine) dendrimers DAB-dendr-(NH2)8, DAB-dendr-(NH2)32, and DAB-dendr-(NH2)64 were fully converted with iodomethane to quaternary ammonium ions at both chain ends and branch points and, using less iodomethane, partially converted to quaternary ammonium ions mainly at end
groups. Amidation of the primary amine ends followed by treatment with iodomethane gave the first dendrimers with quaternary ammonium ions only at branch points. After exchange of iodide counterions for chloride, all of the quaternary ammonium ion dendrimers slightly increased the rate of decarboxylation of 6-nitrobenzisoxazole-3-carboxylate ion in aq. soln. Similar quaternary ammonium ion dendrimers having more hydrophobic interiors or more hydrophobic chains on the ends were much more active catalysts for the decarboxylation.

ACCESSION NUMBER: 2003:381155 CAPLUS
DOCUMENT NUMBER: 138:338679
TITLE: Quaternary ammonium ion dendrimers as catalytic media
AUTHOR(S): Kreider, Jason L.; Ford, Warren T.
CORPORATE SOURCE: Dep. of Chem., Oklahoma State Univ., Stillwater, OK, 74078, USA
SOURCE: Polymeric Materials Science and Engineering (2001), 84, 156-157
CODEN: PMSEDG; ISSN: 0743-0515
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English

IT 339591-26-3P 339591-28-5P
RL: CAT (Catalyst use); SFN (Synthetic preparation); PREP (Preparation); USES (Uses)
(quaternization of com. polyamine dendrimers and utilization of quaternary ammonium ion dendrimers as catalysts for decarboxylation of 6-nitrobenzisoxazole-3-carboxylate)

RN 339591-26-3 CAPLUS
CN 4,8,13,17-Tetraazoniaeicosane-1,20-diaminium, N,N,N,N',N',N',4,8,13,17-decamethyl-8,13-bis[3-(methylbis[3-(trimethylammonio)propyl]ammonio)propyl]-4,17-bis[3-(trimethylammonio)propyl]-, tetradecaiodide (9CI) (CA INDEX NAME)

PAGE 1-A



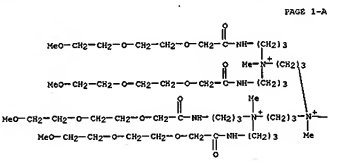
L26 ANSWER 2 OF 19 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)

PAGE 2-A

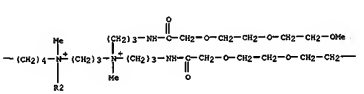
●14 I⁻

RN 339591-28-5 CAPLUS
CN 1,4-Butanediaminium, N,N,N',N'-tetrakis[3-[bis[3-[[[2-(2-methoxyethoxy)ethoxy]acetyl]amino]propyl]methylammonio]propyl]-N,N'-dimethyl-, hexaiodide (9CI) (CA INDEX NAME)

PAGE 1-A



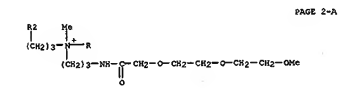
PAGE 1-B



L26 ANSWER 2 OF 19 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)

PAGE 1-C

PAGE 2-A



●6 I⁻

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE
FORMAT

L26 ANSWER 3 OF 19 CAPLUS COPYRIGHT 2003 ACS on STN
AB The material, having .gtoreq.1 layer on a support, contg. a photosensitive
Ag halide grains, an org. Ag salt, and a reducing agent, contains a fluorosurfactant with av. mol. wt. 1800-15000 (not including 15000), comprising a copolymer of (a) a (meth)acrylate with F-contg. aliph. group (Rf) and (b) a poly(oxyalkylene (meth)acrylate), where all the monomer unit content of (a) is 2-24 wt.% and Rf contains C1-26 and F atom of 18-83
wt.% to it (the fluorosurfactant is not N-butylperfluorooctanesulfonsmide
thyl acrylate-methylheptaoxyethylene acrylate copolymer with av. mol. wt. 15000). The material may contain .gtoreq.2 kinds of fluorosurfactant comprising (i) a copolymer of (a) and (b), where (a) content is 2-86 wt.% and Rf contains C1-26 and F atom of 18-83 wt.% to it, and (ii) an anionic surfactant with Rf group and whose F atom content 18-83 wt.%. The material may contain .gtoreq.2 kinds of fluorosurfactant comprising (i) a copolymer of (a), (b), and (c) (meth)acrylate with glycidyl group, in which contents of (a) and (c) are 2-86 and 2-70 wt.% resp. and Rf contains
C1-26 and F atom of 18-83 wt.% to it, and (ii) an anionic surfactant with Rf group and whose F atom content 18-83 wt.%. The material is also claimed, contg. R1R2R3R4Q+.(A1)-L1Z1L2(A2)-.Q+R1R2R3R4 (Q = N, P; R1-4 = substituents to Q, .gtoreq.1 of which contains F atom; A1, A2 = anion; L1,
L2 = bivalent linkage; Z = group with alkylene oxide unit). Those materials are imagewise exposed by focused laser beam with multi-spectra and then heat-developed by using a press roll made of a silicone rubber contg. a metal oxide, oppositely positioned to a drum or roll heated at 80-180.degree. in a developing machine. The sheet substrate has a layer contg. R1(A1)-.R1R2R3R4+L1Z1L2+R4A5R6.(A2)-R1Z [P = P atom; R1, R2 = each (substituted) aliph., arom., or heterocyclic group; A1, A2 = anion; R1-6 = N, substituent of H, L1, L2 = bivalent linkage; Z1 = Z). The material shows improved uniform coating, storage stability before and after processing, conveying properties, abrasion resistance, and dirt prevention, low fog, and high sensitivity.

ACCESSION NUMBER: 2001:632151 CAPLUS
DOCUMENT NUMBER: 135:218763
TITLE: Photothermographic material, image formation, heat development method, and sheet substrate
INVENTOR(S): Hanyu, Takeshi; Usakawa, Yasushi
PATENT ASSIGNEE(S): Konica Co., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 59 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001235831	A2	20010831	JP 2000-44356	20000222

PRIORITY APPLN. INFO.: JP 2000-44356 20000222

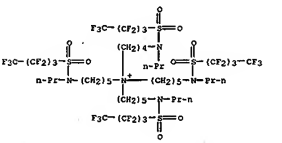
IT 357972-71-5
RL: DEV (Device component use); MOA (Modifier or additive use); USES (Uses)
(photothermog. material contg. quaternary ammonium or phosphonium compd.)

RN 357972-71-5 CAPLUS
CN 1-Pentanaminium, N-[4-[[(nonafluorobutyl)sulfonyl]propylamino]butyl]-N,N-bis[3-[[(nonafluorobutyl)sulfonyl]propylamino]pentyl]-, salt with

L26 ANSWER 3 OF 19 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)
.alpha.-(4-sulfobenzoyl)-.omega.-[(4-sulfobenzoyl)oxy]poly(oxy-1,2-ethanediyl) (1:2) (9CI) (CA INDEX NAME)

CM 1

CRN 357972-70-4
CMF C47 H66 F36 N5 O8 S4



CM 2

CRN 357972-64-6
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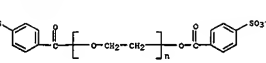
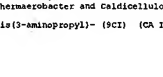
CCI PMS



L26 ANSWER 4 OF 19 CAPLUS COPYRIGHT 2003 ACS on STN
AB Cellular polyamines of 4 new thermophiles located in 3 early branched eubacterial clades, were investigated for the chemotaxonomic significance of polyamine distribution profiles. The thermophilic anaerobic Thermosipho japonicus, belonging to the order Thermotogales, contained norspermidine, norspermine and thermospermine in addn. to spermidine and spermine. The polyamine profile was identical to the polyamine comph. of Thermotoga, Fervidobacterium and Petrotoga species of the order. Spermidine, norspermidine, spermine, N4-bis(aminopropyl)spermidine and agmatine were found in thermophilic aerobic Thermaerobacter marianensis. Some differences were obsd. in the polyamine comps. of the phylogenetically related thermophilic anaerobes, Hoorelia, Dictyoglomus, Thermoanaerobacterium and Thermoanaerobacter species. Thermophilic anaerobic C. kristjanssonii and C. owensensis contained a linear penta-amine, thermopentamine, and 2 quaternary branched penta-amines, N4-bis(aminopropyl)spermidine and N4-bis(aminopropyl)norspermidine, as the
major polyamines. A novel tertiary branched penta-amine, N4-aminopropylspermine, was found in the 2 Caldicellulosiruptor species.

ACCESSION NUMBER: 2001:329885 CAPLUS
DOCUMENT NUMBER: 135:58231
TITLE: Polyamines of the thermophilic eubacteria belonging to
the genera Thermosipho, Thermaerobacter and Caldicellulosiruptor
AUTHOR(S): Hamana, Koei; Niitsu, Masaru; Samejima, Keijiro; Itoh,
Takashi
CORPORATE SOURCE: Gunma University School of Health Sciences, Gunma, 371-8514, Japan
SOURCE: Microbios (2001), 104(409), 177-185
CODEN: MCBIA7; ISSN: 0026-2633
PUBLISHER: Faculty Press
DOCUMENT TYPE: Journal
LANGUAGE: English
IT 143085-76-1
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)
(polyamines of Thermosipho, Thermaerobacter and Caldicellulosiruptor)

RN 143085-76-1 CAPLUS
CN 1-Butanaminium, 4-amino-N,N,N-tris(3-aminopropyl)- (9CI) (CA INDEX NAME)

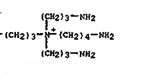


REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L26 ANSWER 5 OF 19 CAPLUS COPYRIGHT 2003 ACS on STN
AB Cellular polyamines of eight new thermophilic archaebacteria were investigated to det. the chemotaxonomic significance of polyamine distribution profiles. Hyperthermoacidophilic Caldivirga maquilingensis belonging to the family Thermoproteaceae of the Crenarchaeota have a unique polyamine profile comprising spermidine, norspermidine and norspermine as the major polyamines. Within the order Thermococcales of the Euryarchaeota, the major polyamines of an extremely thermophilic terrestrial species of Thermococcus, T. zilligii, were spermidine and agmatine, whereas hyperthermophilic submarine species of Thermococcus and hyperthermophilic submarine Palaeococcus ferrophilus contained a quaternary branched penta-amine, N4-bis(aminopropyl)spermidine, as a major
polyamine. A hyperthermophilic methanogen, Methanothermus sociabilis, belonging to Euryarchaeota, contained spermidine and spermine as the major
polyamine.

ACCESSION NUMBER: 2001:186968 CAPLUS
DOCUMENT NUMBER: 134:323232
TITLE: Polyamines of the hyperthermophilic archaebacteria belonging to the genera Thermococcus and Methanothermus and two new genera Caldivirga and Palaeococcus
AUTHOR(S): Hamana, Koei; Itoh, Takashi
CORPORATE SOURCE: Gunma University School of Health Sciences, Gunma, 371-8514, Japan
SOURCE: Microbios (2001), 104(408), 105-114
CODEN: MCBIA7; ISSN: 0026-2633
PUBLISHER: Faculty Press
DOCUMENT TYPE: Journal
LANGUAGE: English
IT 143085-76-1
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)
(polyamines of archaebacteria)

RN 143085-76-1 CAPLUS
CN 1-Butanaminium, 4-amino-N,N,N-tris(3-aminopropyl)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L26 ANSWER 6 OF 19 CAPLUS COPYRIGHT 2003 ACS on STN

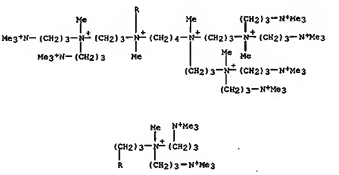
AB The poly(propylene imine) dendrimers DAB-dendr-(NH2)8, DAB-dendr-(NH2)32, and DAB-dendr-(NH2)64 were fully converted with iodomethane to quaternary ammonium ions at both chain ends and branch points and, with less iodomethane, were partially converted to quaternary ammonium ions mainly at end groups. Amidation of the primary amine ends followed by treatment with iodomethane gave the first dendrimers with quaternary ammonium ions only at branch points. After an exchange of iodide counterions for chloride, all of the quaternary ammonium ion dendrimers slightly increased the rate of decarboxylation of 6-nitrobenzisoxazole-3-carboxylate ion in an aq. soln. Similar quaternary ammonium ion dendrimers with more hydrophobic interiors or more hydrophobic chains on the ends were much more active catalysts for the decarboxylation.

ACCESSION NUMBER: 2001:186594 CAPLUS
DOCUMENT NUMBER: 134:367538
TITLE: Quaternary ammonium ion dendrimers from methylation of poly(propylene imine)s
AUTHOR(S): Kreider, Jason L.; Ford, Warren T.
CORPORATE SOURCE: Department of Chemistry, Oklahoma State University, Stillwater, OK, 74078, USA
SOURCE: Journal of Polymer Science, Part A: Polymer Chemistry (2001), 39(6), 821-832
CODEN: JPACEC; ISSN: 0887-624X
PUBLISHER: John Wiley & Sons, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English

IT 339591-32-1 339591-34-3
RL: CAT (Catalyst use); USES (Uses)
(quaternary ammonium ion dendrimers from methylation of poly(propylene imine)s)

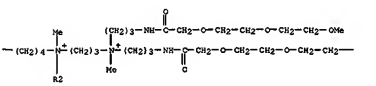
RN 339591-32-1 CAPLUS
CN 4,8,13,17-Tetraazoniaeicosane-1,20-diaminium, N,N,N,N',N',N',4,8,13,17-decamethyl-8,13-bis[3-[methylbis[3-(trimethylammonio)propyl]ammonio]propyl]-4,17-bis[3-(trimethylammonio)propyl]-, tetradecachloride (9CI) (CA INDEX NAME)

PAGE 1-A



L26 ANSWER 6 OF 19 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)

PAGE 1-B



L26 ANSWER 6 OF 19 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)

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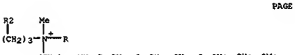
PAGE 2-A



●6 Cl⁻

IT 339591-26-3P 339591-28-5P
RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(quaternary ammonium ion dendrimers from methylation of poly(propylene imine)s)

RN 339591-26-3 CAPLUS
CN 4,8,13,17-Tetraazoniaeicosane-1,20-diaminium, N,N,N,N',N',N',4,8,13,17-decamethyl-8,13-bis[3-[methylbis[3-(trimethylammonio)propyl]ammonio]propyl]-4,17-bis[3-(trimethylammonio)propyl]-, tetradecaiodide (9CI) (CA INDEX NAME)

L26 ANSWER 6 OF 19 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)

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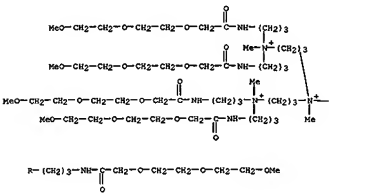
●14 Cl⁻

RN 339591-34-3 CAPLUS
CN 1,4-Butanediaminium, N,N,N',N'-tetrakis[3-[bis[3-[[[2-(2-methoxyethoxy)ethoxy]acetyl]amino]propyl]methylammonio]propyl]-N,N'-dimethyl-, hexachloride (9CI) (CA INDEX NAME)

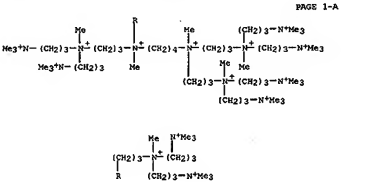
PAGE 1-A



PAGE 1-B

L26 ANSWER 6 OF 19 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)

PAGE 1-A



PAGE 2-A

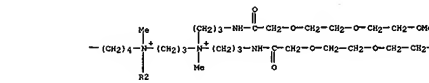
●14 I⁻

RN 339591-28-5 CAPLUS
CN 1,4-Butanediaminium, N,N,N',N'-tetrakis[3-[bis[3-[[[2-(2-methoxyethoxy)ethoxy]acetyl]amino]propyl]methylammonio]propyl]-N,N'-dimethyl-, hexaiodide (9CI) (CA INDEX NAME)

PAGE 1-A

L26 ANSWER 6 OF 19 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)

PAGE 1-B



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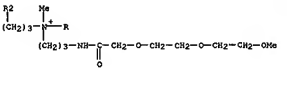
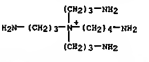
PAGE 2-A



●6 I⁻

REFERENCE COUNT: 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS
FORMAT RECORD. ALL CITATIONS AVAILABLE IN THE RE

L26 ANSWER 7 OF 19 CAPLUS COPYRIGHT 2003 ACS on STN
AB Polyamines were identified in a thermophilic, sulfide-oxidizing bacterium.
Comparable polyamines were found in Aquifex, Hydrogenobacter, and Calderobacterium.
ACCESSION NUMBER: 2001:30292 CAPLUS
DOCUMENT NUMBER: 134:204849
TITLE: Occurrence of quaternary branched penta-amines in a large sausage-shaped thermophilic sulfide-oxidizing bacterium predominated in hot spring sulfur-turf bacterial mats
AUTHOR(S): Hamana, Koni; Kato, Kenji
CORPORATE SOURCE: School of Health Sciences, Faculty of Medicine, Gunma University, Maebashi, 371-8514, Japan
SOURCE: Journal of General and Applied Microbiology (2000), 46(3), 179-182
CODEN: JGAMAS; ISSN: 0022-1260
PUBLISHER: Microbiology Research Foundation
DOCUMENT TYPE: Journal
LANGUAGE: English
IT 143085-76-1
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)
(polyamines in large sausage-shaped thermophilic sulfide-oxidizing bacterium from hot spring sulfur-turf bacterial mats)
RN 143085-76-1 CAPLUS
CN 1-Butanaminium, 4-amino-N,N,N-tris(3-aminopropyl)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS
FORMAT RECORD. ALL CITATIONS AVAILABLE IN THE RE

L26 ANSWER 8 OF 19 CAPLUS COPYRIGHT 2003 ACS on STN
AB Cellular polyamines of thermophilic eubacteria and archaebacteria were investigated for the chemotaxonomic significance of polyamine distribution
profiles within thermophiles. A quaternary branched penta-amine, N4-bis(aminopropyl)norspermidine, and another quaternary branched penta-amine, N4-bis (aminopropyl)spermidine, were the main polyamines in the thermophilic eubacteria, Aquifex pyrophilus and Thermodesulfobacterium
mobile, resp. These quaternary amines and linear hexa-amines were also found in Thermus thermophilus but not detected in the new Thermus species,
T. brockianus and T. oshimai, and Meiothermus species, M. chianophilus and
M. silvanus. In new members of Crenarchaeota, Sulfurisphaera ohwakuensis contained norspermidine, spermidine, norspermine and spermine. In addn. to these triamines and tetraamines, Stetteria hydrogenophila and Thermocladium modestius contained homocaldopentamine and/or thermopentamine, and Sulfophobococcus zilligii contained cadaverine and homospermidine. The main polyamine of the hyperthermophilic Euryarchaeota, Pyrococcus horikoshii and Thermococcus fumicolans, was N4-bis(aminopropyl)spermidine. Hyperthermophilic Methanothermus fervidus and Methanopyrus kandleri contained spermidine, spermine and agmatine, and
lacked long and branched polyamines, suggesting that the distribution of long and branched polyamines are not essential for thermophilic methanogens.
ACCESSION NUMBER: 1999:329098 CAPLUS
DOCUMENT NUMBER: 131:113477
TITLE: Polyamines of the thermophilic eubacteria belonging to
the genera Aquifex, Thermodesulfobacterium, Thermus and Meiothermus, and the thermophilic archaebacteria belonging to the genera Sulfurisphaera, Sulfophobococcus, Stetteria, Thermocladium, Pyrococcus, Thermococcus, Methanopyrus and Methanothermus
AUTHOR(S): Hamana, K.; Hamana, H.; Shinozawa, T.; Niitsu, M.; Samejima, K.; Itoh, T.
CORPORATE SOURCE: Gunma University School of Health Sciences, Gunma, 371-8514, Japan
SOURCE: Microbios (1999), 97(387), 117-130
CODEN: MCBIA7; ISSN: 0026-2633
PUBLISHER: Faculty Press
DOCUMENT TYPE: Journal
LANGUAGE: English
IT 143085-76-1
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)
(polyamines of thermophilic eubacteria and thermophilic archaebacteria)
RN 143085-76-1 CAPLUS
CN 1-Butanaminium, 4-amino-N,N,N-tris(3-aminopropyl)- (9CI) (CA INDEX NAME)

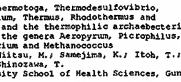
L26 ANSWER 8 OF 19 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)

REFERENCE COUNT: 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS
FORMAT RECORD. ALL CITATIONS AVAILABLE IN THE RE

L26 ANSWER 9 OF 19 CAPLUS COPYRIGHT 2003 ACS on STN

AB Cellular polyamines of several thermophilic eubacteria and archaebacteria were investigated by high performance liq. chromatog. and gas chromatog. A hyperthermophilic eubacterium, Thermotoga maritima, contained a linear pentaamine and a linear hexaamine. The moderate thermophiles, Thermotoga elfii and Thermodesulfovibrio yellowstonii contained a linear pentaamine. A quaternary branched pentaamine, N4-bis(aminopropyl)spermidine, was the major polyamine in extremely thermophilic Thermoleophilum species. Long linear and branched polyamines occurred in the extreme thermophiles, Thermus and Rhodothermus, but were not detected in moderately thermophilic Meiothermus. In archaebacteria, linear pentaamines were distributed in hyperthermophilic Aeropyrum. A moderately thermophilic hyperacidophile, Picrophilus, contained spermidine and lacked longer amines. N4-bis(aminopropyl)spermidine was found in a hyperthermophilic methanogen, Methanococcus jannaschii, as a major polyamine, but not detected in extremely/moderately thermophilic Methanococcus and Methanobacterium species. This is the first report on the occurrence of quaternary branched polyamine in methanogenic archaebacteria. The chemotaxonomic and phylogenetic significance of the distribution of long linear and branched polyamines possibly assocd. with their thermophily exist in the thermophiles.

ACCESSION NUMBER: 1998:645673 CAPLUS
DOCUMENT NUMBER: 129:341520
TITLE: Polyamines of the thermophilic eubacteria belonging to the genera Thermotoga, Thermodesulfovibrio, Thermoleophilum, Thermus, Rhodothermus and Meiothermus, and the thermophilic archaebacteria belonging to the genera Aeropyrum, Picrophilus, Methanobacterium and Methanococcus
AUTHOR(S): Hamana, K.; Niitsu, M.; Samejima, K.; Itoh, T.; Hamana, H.; Shinozawa, T.
CORPORATE SOURCE: Gunma University School of Health Sciences, Gunma, 371, Japan
SOURCE: Microbios (1998), 93(377), 7-21
CODEN: MCBIA7; ISSN: 0026-2633
PUBLISHER: Faculty Press
DOCUMENT TYPE: Journal
LANGUAGE: English
IT 143085-76-1
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)
(polyamines of thermophilic eubacteria and thermophilic archaebacteria)
RN 143085-76-1 CAPLUS
CN 1-Butanaminium, 4-amino-N,N,N-tris(3-aminopropyl)- (9CI) (CA INDEX NAME)



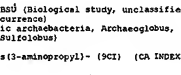
REFERENCE COUNT: 47 THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L26 ANSWER 9 OF 19 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)

L26 ANSWER 10 OF 19 CAPLUS COPYRIGHT 2003 ACS on STN

AB The five hyperthermophilic archaebacteria located on the phylogenetically divergent four orders of Archaeoglobales, Thermococcales, Thermoproteales and Sulfolobales, resp., varied in their cellular polyamine components. Archaeoglobus fulgidus and Archaeoglobus profundus contained two quaternary branched penta-amines, N4-bis(aminopropyl)spermidine and N4-bis(aminopropyl)-norspermidine, as a major polyamine in addn. to spermidine and spermine. Spermidine, spermine, a tertiary branched tetra-amine, N4-aminopropylspermidine, and N4-bis(aminopropyl)spermidine were the major polyamines and canavalmine was the minor polyamine in Thermococcus peptonophilus. Pyrobaculum aerophilum and Sulfolobus hakonensis contained norspermidine, spermidine and norspermine as the major polyamines but they lacked either branched or long linear polyamines.

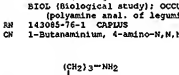
ACCESSION NUMBER: 1997:95001 CAPLUS
DOCUMENT NUMBER: 126:183564
TITLE: Polyamines of hyperthermophilic archaebacteria, Archaeoglobus, Thermococcus, Pyrobaculum and Sulfolobus
AUTHOR(S): Hamana, Koei; Hamana, Hiroshi; Niitsu, Masaru; Samejima, Keijiro; Itoh, Takashi
CORPORATE SOURCE: Coll. Med. Care Technology, Gunma Univ., Gunma, 371, Japan
SOURCE: Microbios (1996), 87(351), 69-76
CODEN: MCBIA7; ISSN: 0026-2633
PUBLISHER: Faculty Press
DOCUMENT TYPE: Journal
LANGUAGE: English
IT 143085-76-1
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)
(polyamines of hyperthermophilic archaebacteria, Archaeoglobus, Thermococcus, Pyrobaculum and Sulfolobus)
RN 143085-76-1 CAPLUS
CN 1-Butanaminium, 4-amino-N,N,N-tris(3-aminopropyl)- (9CI) (CA INDEX NAME)



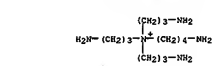
L26 ANSWER 11 OF 19 CAPLUS COPYRIGHT 2003 ACS on STN

AB Polyamines of the seeds, seedlings, and some other tissues of 15 leguminous plants were analyzed by high performance liq. chromatog. and gas chromatog. A novel tertiary branched pentaamine, N5-aminobutylhomospermine, was detected in the seed of Vicia villosa and another novel quaternary branched pentaamine, N4-bis(aminopropyl)spermidine, in the seed of Crotalaria spectabilis. Norspermine and a novel linear pentaamine, caldopentamine, were found in the seed of Gleditschia japonica. Other unusual polyamines such as norspermidine, homospermidine, thermospermine, N4-methylthermospermine, homospermine, and N-(3-aminopropyl)aminopropanol occur widely within leguminous seeds. Nine groups of plant response were found with respect to increases of diaminopropane, putrescine, cadaverine, and agmatine in the leguminous seedlings after germination.

ACCESSION NUMBER: 1997:8218 CAPLUS
DOCUMENT NUMBER: 126:72607
TITLE: Further polyamine analyses of leguminous seeds and seedlings: the occurrence of novel linear, tertiary branched and quaternary branched pentaamines
AUTHOR(S): Hamana, Koei; Niitsu, Masaru; Samejima, Keijiro
CORPORATE SOURCE: College of Medical Care and Technology, Gunma University, Gunma, 371, Japan
SOURCE: Canadian Journal of Botany (1996), 74(11), 1766-1772
CODEN: CJBOAW; ISSN: 0008-4026
PUBLISHER: National Research Council of Canada
DOCUMENT TYPE: Journal
LANGUAGE: English
IT 143085-76-1
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)
(polyamine anal. of leguminous seeds and seedlings)
RN 143085-76-1 CAPLUS
CN 1-Butanaminium, 4-amino-N,N,N-tris(3-aminopropyl)- (9CI) (CA INDEX NAME)

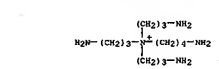


L26 ANSWER 12 OF 19 CAPLUS COPYRIGHT 2003 ACS on STN
AB Polyamines of seventeen strains of thermophilic Gram-pos. anaerobes belonging to seven genera of clostridia were analyzed by high-performance liq. chromatog. and gas chromatog. Caldicellulosiruptor contained spermidine, spermine, thermospermine, thermopentamine, two tertiary branched tetrasamines (N4-aminopropylspermidine and N4-aminopropylnorspermidine) and two quaternary branched pentaamines [N4-bis(aminopropyl)spermidine and N4-bis(aminopropyl)norspermidine]. The major polyamines of Caloramator, Coprothermobacter, Moorella, Thermoanaerobacger, Thermoanaerobacterium and thermophilic Clostridium were putrescine, spermidine and spermine. N4-aminopropylspermidine and N4-bis(aminopropyl)spermidine were found as minor polyamines in some cultures of Moorella and Thermoanaerobacter.
ACCESSION NUMBER: 1996:423666 CAPLUS
DOCUMENT NUMBER: 125:81445
TITLE: Polyamines of thermophilic Gram-positive anaerobes belonging to the genera Caldicellulosiruptor, Caloramator, Clostridium, Coprothermobacter, Moorella, Thermoanaerobacter and Thermoanaerobacterium
AUTHOR(S): Hamana, Koei; Hamana, Hiroshi; Niitsu, Masaru; Samejima, Keijiro
CORPORATE SOURCE: Coll. Medical Care Technol., Gunma Univ., Gunma, 371, Japan
SOURCE: Microbios (1996), 85(345), 213-222
CODEN: MCBIA7; ISSN: 0026-2633
PUBLISHER: Faculty Press
DOCUMENT TYPE: Journal
LANGUAGE: English
IT 143085-76-1
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)
(polyamines of thermophilic Gram-pos. anaerobes)
RN 143085-76-1 CAPLUS
CN 1-Butanaminium, 4-amino-N,N,N-tris(3-aminopropyl)- (9CI) (CA INDEX NAME)



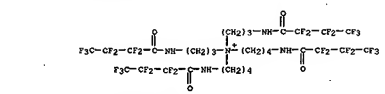
L26 ANSWER 13 OF 19 CAPLUS COPYRIGHT 2003 ACS on STN
AB Polyamines of thermophilic eubacteria and hyperthermophilic archaebacteria were analyzed by high-performance liq. chromatog. and gas chromatog. Thermotoga, Petrotoga, Fervidobacterium and Dictyoglomus contained tetraamines such as spermine, norspermine and thermospermine, penta-amines such as caldopentamine, homocaldopentamine and thermopentamine, and a hexa-amine, caldohexamine. These linear polyamines and the quaternary branched pentaamines, N4-bis(aminopropyl)spermidine and N4-bis(aminopropyl)norspermidine were found in Thermoanaerobacter cellulolyticus. N4-bis(aminopropyl)spermidine, spermidine and spermine were the polyamine components of the other authentic Thermoanaerobacter species. The main polyamine of Thermodesulfobacterium commune was N4-bis(aminopropyl)spermidine. In archaebacteria, an unusual triamine, homospermidine, occurred in Desulfurococcus and Staphylothermus. Caldopentamine, thermopentamine and caldohexamine were detected in Pyrodictium, Hyperthermus and Staphylothermus. Thermoproteus and Pyrobaculum contained tri- and tetra-amines but lacked long linear and branched polyamines. The long linear and branched polyamines are widely distributed in thermophilic eubacteria and archaebacteria and are chemotaxonomically useful in the thermophiles.
ACCESSION NUMBER: 1996:393216 CAPLUS
DOCUMENT NUMBER: 125:53207
TITLE: Distribution of long linear and branched polyamines in thermophilic eubacteria and hyperthermophilic archaebacteria
AUTHOR(S): Hamana, Koei; Hamana, Hiroshi; Niitsu, Masaru; Samejima, Keijiro; Itoh, Takashi
CORPORATE SOURCE: Coll. Medical Care Technol., Gunma Univ., Gunma, 371, Japan
SOURCE: Microbios (1996), 85(342), 19-33
CODEN: MCBIA7; ISSN: 0026-2633
PUBLISHER: Faculty Press
DOCUMENT TYPE: Journal
LANGUAGE: English
IT 143085-76-1
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)
(distribution of long linear and branched polyamines in thermophilic eubacteria and hyperthermophilic archaebacteria)
RN 143085-76-1 CAPLUS
CN 1-Butanaminium, 4-amino-N,N,N-tris(3-aminopropyl)- (9CI) (CA INDEX NAME)

L26 ANSWER 14 OF 19 CAPLUS COPYRIGHT 2003 ACS on STN
AB Polyamines of thermophilic archaebacteria were analyzed by HPLC and gas chromatog. Thermoplasma acidophilum and Thermoplasma volcanium ubiquitously contained spermidine and spermine. Four spp. of Sulfolobus, S. acidocaldarius, S. solfataricus, S. metallicus, and S. shibatae, 2 spp. of Acidianus, A. brierleyi and A. infernus, and Metallosphaera sedula contained norspermidine and norspermine in addn. to spermidine and spermine, but quant. distribution profiles were species-specific. A tertiary tetraamine, N4-aminopropylspermidine, and a quaternary pentaamine, N4-bis(aminopropyl)spermidine, were detected as major polyamines in 3 spp. of Thermococcus, T. celer, T. litoralis, and T. stetteri, and 2 Pyrococcus spp., P. furiosus and P. woesei. This is the 1st report of the occurrence of branched polyamines in archaebacteria.
ACCESSION NUMBER: 1995:82668 CAPLUS
DOCUMENT NUMBER: 122:5033
TITLE: Occurrence of tertiary and quaternary branched polyamines in thermophilic archaebacteria
AUTHOR(S): Hamana, Koei; Hamana, Hiroshi; Niitsu, Masaru; Samejima, Keijiro; Sakane, Takeshi; Yokota, Akira
CORPORATE SOURCE: Coll. Med. Care Technol., Gunma Univ., Maebashi, 371, Japan
SOURCE: Microbios (1994), 79(319), 109-19
CODEN: MCBIA7; ISSN: 0026-2633
DOCUMENT TYPE: Journal
LANGUAGE: English
IT 143085-76-1
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)
(tertiary and quaternary branched polyamines in thermophilic archaebacteria)
RN 143085-76-1 CAPLUS
CN 1-Butanaminium, 4-amino-N,N,N-tris(3-aminopropyl)- (9CI) (CA INDEX NAME)

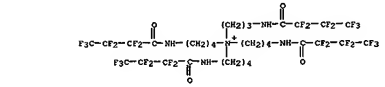


L26 ANSWER 15 OF 19 CAPLUS COPYRIGHT 2003 ACS on STN
AB Using heptafluorobutyzyl derivs. of 27 linear di-, tri-, tetra-, penta- and hexamines comtg. various sets of isomers, and 4 tertiary tetraamines and 5 quaternary pentaamines, mostly with 3 or 4 methylene chain units, their gas chromatog. (GC) and gas chromatog.-mass spectrometric (GC-MS) properties were compared and examd.. Several results useful for their systematic anal. were found: assured baseline sepn. of 1 methylene difference in linear di- and polyamines and tertiary tetraamines by GC; distinct pyrolytic decompn. patterns of quaternary pentaamines by GC; distinct cleavage patterns of 3 or 4 methylene chain units by GC-MS; and distinct mass spectra of linear polyamines and tertiary tetraamines by GC-MS.
ACCESSION NUMBER: 1993:551383 CAPLUS
DOCUMENT NUMBER: 119:151383
TITLE: Systematic analysis of naturally occurring linear and branched polyamines by gas chromatography and gas chromatography-mass spectrometry
AUTHOR(S): Niitsu, Masaru; Samejima, Keijiro; Matsuzaki, Shigeru; Hamana, Koei
CORPORATE SOURCE: Faculty of Pharmaceutical Sciences, Josai University, 1-1 Keyakidai, Sakado, Saitama, 350-02, Japan
SOURCE: Journal of Chromatography (1993), 641(1), 115-23
CODEN: JOCRAM; ISSN: 0021-9673
DOCUMENT TYPE: Journal
LANGUAGE: English
IT 149981-89-5 149981-90-8 149981-91-9 149981-92-0
RL: ANT (Analyte); ANST (Analytical study)
(gas chromatog. and mass spectrometry of)
RN 149981-89-5 CAPLUS
CN 1-Butanaminium, 4-[(2,2,3,3,4,4,4-heptafluoro-1-oxobutyl)amino]-N,N,N-tris[3-[(2,2,3,3,4,4,4-heptafluoro-1-oxobutyl)amino]propyl]- (9CI) (CA INDEX NAME)

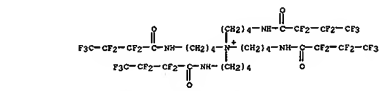
RN 149981-90-8 CAPLUS
CN 1-Butanaminium, 4-[(2,2,3,3,4,4,4-heptafluoro-1-oxobutyl)amino]-N-[4-[(2,2,3,3,4,4,4-heptafluoro-1-oxobutyl)amino]butyl]-N,N-bis(3-[(2,2,3,3,4,4,4-heptafluoro-1-oxobutyl)amino]propyl]- (9CI) (CA INDEX NAME)



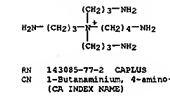
RN 149981-91-9 CAPLUS
CN 1-Butanaminium, 4-[(2,2,3,3,4,4,4-heptafluoro-1-oxobutyl)amino]-N,N-bis[4-[(2,2,3,3,4,4,4-heptafluoro-1-oxobutyl)amino]butyl]-N-[3-[(2,2,3,3,4,4,4-heptafluoro-1-oxobutyl)amino]propyl]- (9CI) (CA INDEX NAME)



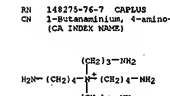
RN 149981-92-0 CAPLUS
CN 1-Butanaminium, 4-[(2,2,3,3,4,4,4-heptafluoro-1-oxobutyl)amino]-N,N,N-tris[4-[(2,2,3,3,4,4,4-heptafluoro-1-oxobutyl)amino]butyl]- (9CI) (CA INDEX NAME)



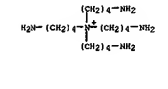
IT 143085-76-1 143085-77-2 148275-76-7
148275-81-4
RL: PRP (Properties); ANST (Analytical study)
(gas chromatog.-mass spectromatry of, as heptafluorobutyryl deriv.)
RN 143085-76-1 CAPLUS
CN 1-Butanaminium, 4-amino-N,N,N-tris(3-aminopropyl)- (9CI) (CA INDEX NAME)



RN 143085-77-2 CAPLUS
CN 1-Butanaminium, 4-amino-N-(4-aminobutyl)-N,N-bis(3-aminopropyl)- (9CI) (CA INDEX NAME)

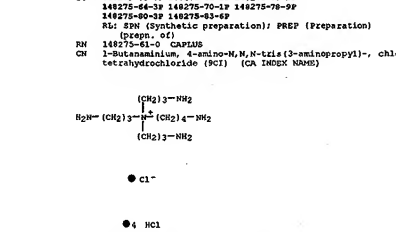


RN 148275-76-7 CAPLUS
CN 1-Butanaminium, 4-amino-N,N-bis(4-aminobutyl)-N-(3-aminopropyl)- (9CI) (CA INDEX NAME)

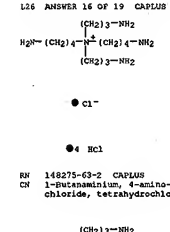


RN 148275-81-4 CAPLUS
CN 1-Butanaminium, 4-amino-N,N,N-tris(4-aminobutyl)- (9CI) (CA INDEX NAME)

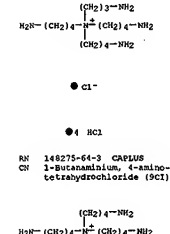
AB Tertiary tetraamines and quaternary pentaamines composed of aminopropyl and/or aminobutyl groups were synthesized as authentic samples for the identification of naturally occurring branched polyamines. Four tertiary tetraamines, including [H2N(CH2)n]3N.4HCl (n = 3, 4) and [H2N(CH2)3]2N(CH2)4NH2.HCl, were obtained by alkylating the free secondary amine group of diphtheloyl derivs. of sym-norspermidine or sym-homospermidine with N-(3-bromopropyl)phthalimide or N-(4-bromobutyl)phthalimide in the presence of KF-Celite. Five quaternary pentaamines, e.g., [H2N(CH2)n]4N+ Cl-.4HCl (n = 3, 4), were obtained by fusing triphthaloyl derivs. of the tertiary tetraamines with an excess amt. of N-(3-iodopropyl)phthalimide or N-(4-iodobutyl)phthalimide. The present methods are simple and achieved high yields. The 13C-NMR spectra of these branched polyamines were recorded in D2O as fully protonated forms, and all 13C chem. shifts were assigned consistently.
ACCESSION NUMBER: 1993:427654 CAPLUS
DOCUMENT NUMBER: 119:27654
TITLE: Syntheses of tertiary tetraamines and quaternary pentaamines with three and four methylene chain units
AUTHOR(S): Mitsu, Masaru; Sano, Hirao; Samejima, Keijiro
CORPORATE SOURCE: Fac. Pharm. Sci., Josai Univ., Sakado, 350-02, Japan
SOURCE: Chemical & Pharmaceutical Bulletin (1992), 40(11), 2958-61
CODEN: CPBTAL; ISSN: 0009-2363
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 119:27654
IT 148275-61-0P 148275-62-1P 148275-63-2P
148275-64-3P 148275-70-1P 148275-78-9P
148275-80-3P 148275-83-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 148275-61-0 CAPLUS
CN 1-Butanaminium, 4-amino-N,N,N-tris(3-aminopropyl)-, chloride, tetrahydrochloride (9CI) (CA INDEX NAME)



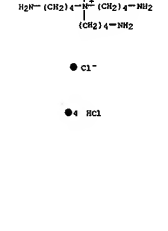
RN 148275-62-1 CAPLUS
CN 1-Butanaminium, 4-amino-N-(4-aminobutyl)-N,N-bis(3-aminopropyl)-, chloride, tetrahydrochloride (9CI) (CA INDEX NAME)



RN 148275-63-2 CAPLUS
CN 1-Butanaminium, 4-amino-N,N-bis(4-aminobutyl)-N-(3-aminopropyl)-, chloride, tetrahydrochloride (9CI) (CA INDEX NAME)



RN 148275-64-3 CAPLUS
CN 1-Butanaminium, 4-amino-N,N,N-tris(4-aminobutyl)-, chloride, tetrahydrochloride (9CI) (CA INDEX NAME)



L26 ANSWER 16 OF 19 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)

RN 148275-70-1 CAPLUS
CN 1-Butanaminium, 4-amino-N,N,N-tris(3-aminopropyl)-, perchlorate, tetraperchlorate (9CI) (CA INDEX NAME)

CM 1

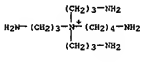
CRN 7601-90-3
CMF Cl H O4

CM 2

CRN 148275-69-8
CMF C13 H34 N5 . Cl O4

CM 3

CRN 143085-76-1
CMF C13 H34 N5



CM 4

CRN 14797-73-0
CMF Cl O4

RN 148275-78-9 CAPLUS
CN 1-Butanaminium, 4-amino-N,N-bis(4-aminobutyl)-N-(3-aminopropyl)-, perchlorate, tetraperchlorate (9CI) (CA INDEX NAME)

CM 1

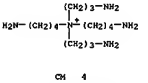
CRN 7601-90-3
CMF Cl H O4

L26 ANSWER 16 OF 19 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)

CRN 148275-79-0
CMF C14 H36 N5 . Cl O4

CM 3

CRN 143085-77-2
CMF C14 H36 N5



CM 4

CRN 14797-73-0
CMF Cl O4

RN 148275-83-6 CAPLUS
CN 1-Butanaminium, 4-amino-N,N,N-tris(4-aminobutyl)-, perchlorate, tetraperchlorate (9CI) (CA INDEX NAME)

CM 1

CRN 7601-90-3
CMF Cl H O4

CM 2

CRN 148275-82-5
CMF C16 H40 N5 . Cl O4

CM 3

CRN 148275-81-4
CMF C16 H40 N5

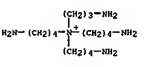
L26 ANSWER 16 OF 19 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)

CM 2

CRN 148275-77-8
CMF C15 H38 N5 . Cl O4

CM 3

CRN 148275-76-7
CMF C15 H38 N5



CM 4

CRN 14797-73-0
CMF Cl O4

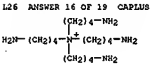
RN 148275-80-3 CAPLUS
CN 1-Butanaminium, 4-amino-N-(4-aminobutyl)-N,N-bis(3-aminopropyl)-, perchlorate, tetraperchlorate (9CI) (CA INDEX NAME)

CM 1

CRN 7601-90-3
CMF Cl H O4

CM 2

L26 ANSWER 16 OF 19 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)

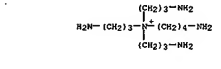


CM 4

CRN 14797-73-0
CMF Cl O4

L26 ANSWER 17 OF 19 CAPLUS COPYRIGHT 2003 ACS on STN
AB Polyamines of thermophilic gram-neg. eubacteria, Rhodothermus marinus ATCC
43812, Thermus sp. ATCC 43814, and Thermonema lapsum ATCC 43542 were analyzed by HPLC and gas chromatog.-mass spectrometry. R. marinus contained spermidine, spermine, thermopentamine, a tertiary tetraamine (N4-aminopropylspermidine), and a quaternary pentaamine (N4-bis(aminopropyl)spermidine). Thermus sp. ATCC 43814 contained putrescine, cadaverine, norspermidine, spermidine, homospermidine, norspermine, spermine, thermospermine, aminopropylhomospermidine, caldopentamine, agmatine, 2 tertiary tetraamines (N4-aminopropylnorspermidine and N4-aminopropylspermidine), and 2 quaternary pentaamines (N4-bis(aminopropyl)norspermidine and N4-bis(aminopropyl)spermidine). Homospermidine and homospermine were detected in T. lapsum as the major polyamine. These distribution patterns
of long and branched polyamines are distinctive in the thermophiles, indicating that unusual polyamine profiles serve to est. chemotaxonomic and phylogenetic relations within thermophilic eubacteria.

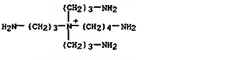
ACCESSION NUMBER: 1993:251160 CAPLUS
DOCUMENT NUMBER: 118:251160
TITLE: Distribution of unusual long and branched polyamines in thermophilic eubacteria belonging to "Rhodothermus," Thermus and Thermonema
AUTHOR(S): Hamana, Koei; Hamana, Hiroshi; Hiitsu, Masaru; Samejima, Keijiro; Matsuzaki, Sigeru
CORPORATE SOURCE: Coll. Med. Care Technol., Gunma Univ., Maebashi, 371, Japan
SOURCE: Journal of General and Applied Microbiology (1992), 38(6), 575-84
CODEN: JGAMA5; ISSN: 0022-1260
DOCUMENT TYPE: Journal
LANGUAGE: English
IT 143085-76-1
RL: BIOL (Biological study)
(of thermophilic eubacteria)
RN 143085-76-1 CAPLUS
CN 1-Butanaminium, 4-amino-N,N,N-tris(3-aminopropyl)- (9CI) (CA INDEX NAME)



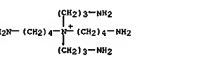
L26 ANSWER 18 OF 19 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)

L26 ANSWER 18 OF 19 CAPLUS COPYRIGHT 2003 ACS on STN
AB Novel tertiary branched tetraamines, quaternary branched pentaamines, linear pentaamines, and linear hexaamines were distributed as the major polyamines in 6 obligately extremely thermophilic eubacteria belonging to Thermoleophilum, Bacillus, or Hydrogenobacter. The major polyamine of T. albus and T. minutum was identified as a quaternary branched pentaamine, 4,4-bis(3-aminopropyl)-1,8-diamino-4-azaoctane ([NH2(CH2)3N+([CH2]4NH2)2[CH2]4NH2) by HPLC, TLC, and gas chromatog.-mass spectrometry. H. thermophilus and H. halophilus contained another quaternary branched pentaamine, 4,4-bis(3-aminopropyl)-1,7-diamino-4-azaheptane as the major polyamine, and tertiary branched tetraamines (4-(3-aminopropyl)-1,7-diamino-4-azaheptane, 4-(3-aminopropyl)-1,8-diamino-
4-azaoctane, and 4,4-bis(3-aminopropyl)-1,8-diamino-4-azaoctane were confirmed as minor components. B. schlegelii contained a branched tetraamine, 4-(3-aminopropyl)-1,8-diamino-4-azaoctane, a branched pentaamine, 4,4-bis(3-aminopropyl)-1,8-diamino-4-azaoctane, a linear pentaamine, 1,16-diamino-4,8,13-triazahexadecane and linear hexaamine(s), 1,20-diamino-4,8,12,17-tetraazaeicosane and/or 1,20-diamino-4,8,13,17-tetraazaeicosane.

ACCESSION NUMBER: 1992:567247 CAPLUS
DOCUMENT NUMBER: 117:167247
TITLE: Novel linear and branched polyamines in the extremely thermophilic eubacteria Thermoleophilum, Bacillus and Hydrogenobacter
AUTHOR(S): Hamana, Koei; Hiitsu, Masaru; Matsuzaki, Shigeru; Samejima, Keijiro; Igarashi, Yasuo; Kodama, Tohru
CORPORATE SOURCE: Coll. Med. Care Technol., Gunma Univ., Maebashi, 371, Japan
SOURCE: Biochemical Journal (1992), 284(3), 741-7
CODEN: BIJOAV; ISSN: 0306-3275
DOCUMENT TYPE: Journal
LANGUAGE: English
IT 143085-76-1 143085-77-2
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)
(of thermophilic bacteria)
RN 143085-76-1 CAPLUS
CN 1-Butanaminium, 4-amino-N,N,N-tris(3-aminopropyl)- (9CI) (CA INDEX NAME)



RN 143085-77-2 CAPLUS
CN 1-Butanaminium, 4-amino-N-(4-aminobutyl)-N,N-bis(3-aminopropyl)- (9CI) (CA INDEX NAME)

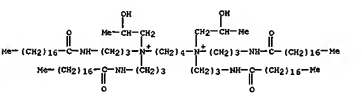


L26 ANSWER 19 OF 19 CAPLUS COPYRIGHT 2003 ACS on STN
AB Steric acid (I), behenic acid, or oleic acid is condensed with dipropylenetriamine (II) or diethylenetriamine, treated with propylene oxide (III), with acrylamide, or with HCHO and HCO2H, and then treated with Cl(CH2)4Cl, dichlorodiethyl ether, Br(CH2)10Br, or p-xylylene dichloride to prep. quaternary amines useful as softeners for cotton, polyamide, polyester, and other textiles and for paper. In 2 cases, the quaternary amines are treated with Na pentachlorophenolate or methylenebis(chlorophenol) to prep. antimicrobial softeners. Thus, 1620 parts I is condensed at 200.deg. with 393 parts II, treated (250 parts) with 30 parts III during 5 hr at 90.deg., and treated (70 parts) with 19 parts Cl(CH2)4Cl during 30 min at 150.deg. to prep. a softener for cotton textiles.

ACCESSION NUMBER: 1972:490405 CAPLUS
DOCUMENT NUMBER: 77:90405
TITLE: Polyamide ammonium compounds for finishing textiles
INVENTOR(S): Hochreuter, Richard
PATENT ASSIGNEE(S): Sandoz Ltd.
SOURCE: Ger. Offen., 32 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2150225	A	19720608	DE 1971-2150225	19711008
CH 553156	A	19740830	CH 1970-14902	19701009
US 3792352	A	19740219	US 1971-186507	19711004
AU 7134293	A1	19730412	AU 1971-34293	19711006
ES 395812	A1	19741016	ES 1971-395812	19711007
GB 1377216	A	19741211	GB 1971-46765	19711007
FR 2111168	A5	19720602	FR 1971-36303	19711008
IT 945769	A	19730510	IT 1971-70303	19711008

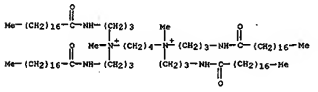
PRIORITY APPLN. INFO.: CH 1970-14902 19701009
IT 38471-55-5 38471-57-7 38471-95-3
RL: USES (Uses)
(softening agents, for textiles)
RN 38471-55-5 CAPLUS
CN 1,4-Butanediaminium, N,N'-bis(2-hydroxypropyl)-N,N,N',N'-tetrakis[3-[(1-oxooctadecyl)amino]propyl]-, dichloride (9CI) (CA INDEX NAME)



●2 Cl⁻

RN 38471-57-7 CAPLUS

CN 1,4-Butanediaminium, N,N'-dimethyl-N,N,N',N'-tetrakis[3-[(1-oxooctadecyl)amino]propyl]-, dichloride (9CI) (CA INDEX NAME)



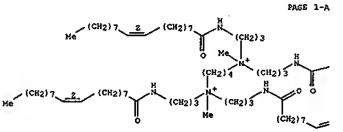
●2 Cl⁻

RN 38471-95-3 CAPLUS

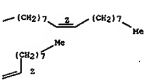
CN 1,4-Butanediaminium, N,N'-dimethyl-N,N,N',N'-tetrakis[3-[(1-oxo-9-octadecenyl)amino]propyl]-, dichloride, (all-Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-A



●2 Cl⁻



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                                                       ENTRY    SESSION
FULL ESTIMATED COST                                    88.69    1178.20

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)          SINCE FILE      TOTAL
                                                       ENTRY    SESSION
CA SUBSCRIBER PRICE                                   -12.37     -60.54

FILE 'REGISTRY' ENTERED AT 14:59:41 ON 24 DEC 2003
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STRUCTURE FILE UPDATES:   23 DEC 2003  HIGHEST RN 630084-36-5
DICTIONARY FILE UPDATES:  23 DEC 2003  HIGHEST RN 630084-36-5

TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2003

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  conducting SmartSELECT searches.

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information enter HELP PROP at an arrow prompt in the file or refer
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http://www.cas.org/ONLINE/DBSS/registryss.html

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Uploading 10005294.str

L27     STRUCTURE UPLOADED

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L27             STR
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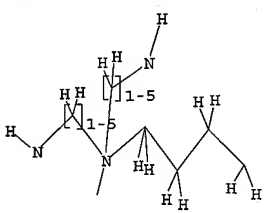


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Structure attributes must be viewed using STN Express query preparation.


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SAMPLE SCREEN SEARCH COMPLETED -   9241 TO ITERATE
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 10.8% PROCESSED    1000 ITERATIONS                                0 ANSWERS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:       179061 TO   190579
PROJECTED ANSWERS:               0 TO        0

L28           0 SEA SSS SAM L27

=> s l27 full
FULL SEARCH INITIATED 15:00:58 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 183943 TO ITERATE

100.0% PROCESSED  183943 ITERATIONS                              54 ANSWERS
SEARCH TIME: 00.00.03

L29          54 SEA SSS FUL L27

=> fil caplus
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                   148.55    1326.75

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)          SINCE FILE      TOTAL
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CA SUBSCRIBER PRICE                                     0.00     -60.54

FILE 'CAPLUS' ENTERED AT 15:01:04 ON 24 DEC 2003
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FILE COVERS 1907 - 24 Dec 2003  VOL 139 ISS 26
FILE LAST UPDATED: 23 Dec 2003  (20031223/ED)

  This file contains CAS Registry Numbers for easy and accurate
  substance identification.


=> s l29
L30          41 L29

=> d l30 1-41 abs ibib hitstr
```

L30 ANSWER 1 OF 41 CAPLUS COPYRIGHT 2003 ACS on STN
AB A plant protection formulation contains at least one Cu2+-contg. compd. as
an active ingredient, characterized in that the active ingredient
comprises an amt. of at least one chelate of Cu2+ with a polyamine compd.

ACCESSION NUMBER: 2003:715744 CAPLUS
DOCUMENT NUMBER: 139:241667
TITLE: Plant protection formulation containing a copper-polyamine chelate
INVENTOR(S): Caneelynck, Rudiger; De Potter, Pierre
PATENT ASSIGNEE(S): BMS Micro-Nutrients N. V., Belg.
SOURCE: Eur. Pat. Appl., 14 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

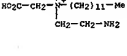
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1342413	A1	20030910	EP 2002-447035	20020308
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
PRIORITY APPLN. INFO.:			EP 2002-447035	20020308

IT 143085-76-1D, copper chelates
RL: AGR (Agricultural use); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)
(plant protection formulation contg.)
RN 143085-76-1 CAPLUS
CN 1-Butanaminium, 4-amino-N,N,N-tris(3-aminopropyl)- (9CI) (CA INDEX NAME)

REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L30 ANSWER 2 OF 41 CAPLUS COPYRIGHT 2003 ACS on STN
AB The interaction between three kinds of antiseptic compds. and components of intercellular lipids in the stratum corneum was characterized in terms of thermodn. at pH 7.5 and 25, and the different mechanisms used to penetrate the stratum corneum were clarified. Anionic surfactants such as
benzalkonium chloride and benzethonium chloride mainly bound to cholesterol (CH) and cholesterol sulfate with high affinity (10^5-10^6 M^-1) to ext. endogenous CH from the stratum corneum and penetrated through the intercellular route. Chlorhexidine gluconate also bound to CH and accumulated in the stratum corneum without removing endogenous CH. An amphoteric surfactant of dodecyldiaminoethylglycine hydrochloride seemed to be incorporated into the lipid bilayer and bound to ceramide with its polar and close to the lipid polar heads by hydrophobic interaction.

ACCESSION NUMBER: 2002:493319 CAPLUS
DOCUMENT NUMBER: 138:82955
TITLE: Interaction of Antiseptic Compounds with Intercellular Lipids of Stratum Corneum
AUTHOR(S): Aki, H.
CORPORATE SOURCE: Faculty of Pharmaceutical Sciences, Department of Pharmaceutics, Fukuoka University, Jonan-ku, Fukuoka, 814-0180, Japan
SOURCE: Journal of Thermal Analysis and Calorimetry (2002), 68(2), 553-560
CODEN: JTACF7; ISSN: 1418-2874
PUBLISHER: Kluwer Academic Publishers
DOCUMENT TYPE: Journal
LANGUAGE: English
IT 76721-98-7, Dodecyldiaminoethylglycine hydrochloride
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(interaction of antiseptic compds. with intercellular lipids of stratum
corneum)
RN 76721-98-7 CAPLUS
CN 1-Dodecanaminium, N,N-bis(2-aminoethyl)-N-(carboxymethyl)-, chloride (9CI)
(CA INDEX NAME)



REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

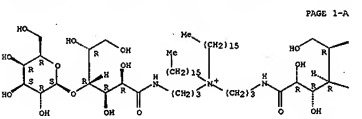
L30 ANSWER 3 OF 41 CAPLUS COPYRIGHT 2003 ACS on STN
AB New nonionic surfactants, N-alkyl-(N,N-bis(2-lactobionylamido)propyl)amine (N-alkyl: -C12H25, -C16H33, -C18H38) and a gemini surfactant contg. cetyl chain were investigated as stabilizers for n-tetradecane/ethanol (0.5 or 1
M) emulsions. These are nontoxic substances and could be applied for pharmaceutical or dairy emulsion prepn. The dynamic light scattering technique was applied for detn. of the av. effective diam. and zeta potential of the droplets as a function of time up to two days. These parameters were detd. subsequently on the same sample without any mixing of it. Depending on the surfactant concn. (10-6, 10-5 and 10-4 M) and the
emulsion pH, an increase or decrease in the droplet size was obsd. relative to the emulsion in the alc. soln. alone. It seems that the dynamic light scattering technique is a useful one for tracking changes in
droplet size distribution in the emulsion systems. Some of the emulsions were more stable in the surfactant presence. However, in some other cases
the surfactants destabilized emulsion. The zeta potentials in 10-5 and 10-4 M surfactant solns. were pos. at pH natural (5-8) and acidic (pH 4) while at pH 11 they were neg. The isoelec. point of the emulsion droplets
occurred in pH range 8-10, depending on the kind and concn. of the surfactant. It indicated that H+ and OH- ions were potential detq. via adsorbed on the oil surface of the surfactant mols. In surfactant-free emulsion, the zeta potentials of n-tetradecane droplets were neg. in pH range 4-11. It was concluded that hydrogen bondings between surfactant/alc. and alc./water polar groups played an essential role in the emulsion stabilization (the extended DLVO theory).

ACCESSION NUMBER: 2002:181767 CAPLUS
DOCUMENT NUMBER: 138:243070
TITLE: Studies of oil-in-water emulsion stability in the presence of new dicephalic saccharide-derived surfactants
AUTHOR(S): Wiacek, Agnieszka Ewa; Chibowski, Emil; Wilk, Kazimiera
CORPORATE SOURCE: Faculty of Chemistry, Department of Interfacial Phenomena, University of Lublin, Lublin, 20031, Pol.
SOURCE: Colloids and Surfaces, B: Biointerfaces (2002), 25(3), 243-256
CODEN: CSBBEQ; ISSN: 0927-7765
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
IT 501644-85-5
RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES
(Uses)
(oil-in-water emulsion stability in the presence of new dicephalic saccharide-derived surfactants)
RN 501644-85-5 CAPLUS
CN 1-Hexadecanaminium, N-hexadecyl-N,N-bis[3-[(4-O-.beta.-D-galactopyranosyl-D-gluconoyl)amino]propyl]- (9CI) (CA INDEX NAME)

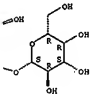
Absolute stereochemistry.

L30 ANSWER 3 OF 41 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)

PAGE 1-A



PAGE 1-B



REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L30 ANSWER 4 OF 41 CAPLUS COPYRIGHT 2003 ACS on STN

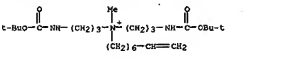
AB Polymers are formed in the presence of nucleic acid using template polymn.
Also, polymn. occur in heterophase systems. These methods can be used for
the delivery of nucleic acids, for condensing the nucleic acid, for forming nucleic acid binding polymers, for forming supramol. complexes contg. nucleic acid and polymer, and for forming an interpolyelectrolyte complex. For example, step polymn. with DNA as a template was performed using N,N'-bis(2-aminoethyl)-1,3-propanediamine and dithiobis(succinimidylpropionate). It was possible to obtain DNA-bound polyamide as a result of the polymn. and the resulting polymer can condense template DNA into compact structures.

ACCESSION NUMBER: 136:107515
DOCUMENT NUMBER: 136:107515
TITLE: Polymer formation in presence of nucleic acid using template polymerization
INVENTOR(S): Wolff, Jon A.; Hagstrom, James E.; Budker, Vladimir G.; Trubetskoy, Vladimir S.; Slattum, Paul M.; Hanson, Lisa J.
PATENT ASSIGNEE(S): Mirus Corp., USA
SOURCE: U.S., 26 pp., Cont.-in-part of U.S. Ser. No. 778,657.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 6
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6339067	B1	20020115	US 1997-692	19971230
US 6126964	A	20001003	US 1997-778657	19970103
US 2001024829	A1	20010927	US 2001-753990	20010102
US 6383811	B2	20020507		
US 2002165184	A1	20021107	US 2001-993216	20011116
US 2002061287	A1	20020523	US 2001-4763	20011205
US 2002085989	A1	20020704	US 2001-5294	20011205
PRIORITY APPLN. INFO.:			US 1997-778657 A2	19970103
			US 1996-9593P P	19960104
			US 1997-692 A2	19971230
			US 1999-464871 A3	19991216
			US 1999-174132P P	19991231

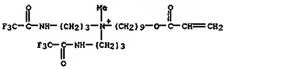
IT 210292-18-5P 210292-22-1P 389132-27-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(polymer formation in presence of nucleic acid using template polymn.)
RN 210292-18-5 CAPLUS
CN 7-Octen-1-aminium, N,N-bis[3-[((1,1-dimethylethoxy)carbonyl]amino]propyl]-N-methyl-, bromide (9CI) (CA INDEX NAME)

L30 ANSWER 4 OF 41 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)



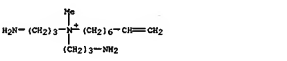
● Br⁻

RN 210292-22-1 CAPLUS
CN 1-Nonanaminium, N-methyl-9-[(1-oxo-2-propenyl)oxy]-N,N-bis[3-[(trifluoroacetyl)amino]propyl]-, bromide (9CI) (CA INDEX NAME)



● Br⁻

RN 389132-27-8 CAPLUS
CN 7-Octen-1-aminium, N,N-bis(3-aminopropyl)-N-methyl-, bromide, dihydrochloride (9CI) (CA INDEX NAME)



● Br⁻

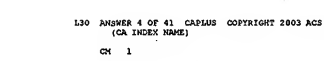
●2 HCl

IT 389132-30-3P
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(polymer formation in presence of nucleic acid using template polymn.)
RN 389132-30-3 CAPLUS
CN 7-Octen-1-aminium, N,N-bis(3-aminopropyl)-N-methyl-, bromide, dihydrochloride, polymer with dimethyl 3,3'-dithiobis[propanimidate] (9CI)

L30 ANSWER 4 OF 41 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)
(CA INDEX NAME)

CM 1

CRN 389132-27-8
CMF C15 H34 N3 . Br . 2 Cl H

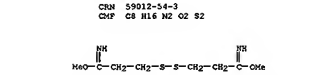


● Br⁻

●2 HCl

CM 2

CRN 59012-54-3
CMF C8 H16 N2 O2 S2



REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE
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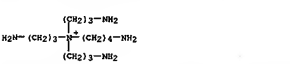
L30 ANSWER 5 OF 41 CAPLUS COPYRIGHT 2003 ACS on STN

AB Cellular polyamines of 4 new thermophiles located in 3 early branched eubacterial clades, were investigated for the chemotaxonomic significance of polyamine distribution profiles. The thermophilic anaerobic Thermosipho japonicus, belonging to the order Thermotogales, contained norspermidine, norspermine and thermospermine in addn. to spermidine and spermine. The polyamine profile was identical to the polyamine compn. of Thermotoga, Pervidobacterium and Petrotoga species of the order. Spermidine, norspermidine, spermine, N4-bis(aminopropyl)spermidine and agmatine were found in thermophilic aerobic Thermaerobacter marianensis. Some differences were obsd. in the polyamine compns. of the phylogenetically related thermophilic anaerobes, Hoorella, Dictyoglomus, Thermoanaerobacterium and Thermoanaerobacter species. Thermophilic anaerobic C. kristjanssonii and C. owensensis contained a linear penta-amine, thermopentamine, and 2 quaternary branched penta-amines, N4-bis(aminopropyl)spermidine and N4-bis(aminopropyl)norspermidine, as the
major polyamines. A novel tertiary branched penta-amine, N4-aminopropylspermine, was found in the 2 Caldicellulosiruptor species.

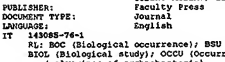
ACCESSION NUMBER: 2001:329985 CAPLUS
DOCUMENT NUMBER: 135:58231
TITLE: Polyamines of the thermophilic eubacteria belonging to
the genera Thermosipho, Thermaerobacter and Caldicellulosiruptor
AUTHOR(S): Hamana, Koei; Niitsu, Masaru; Samejima, Keijiro; Itoh, Takashi
CORPORATE SOURCE: Gunma University School of Health Sciences, Gunma, 371-8514, Japan
SOURCE: Microbios (2001), 104(409), 177-185
CODEN: MCBIA7; ISSN: 0026-2633
PUBLISHER: Faculty Press
DOCUMENT TYPE: Journal
LANGUAGE: English

IT 143085-76-1
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)
(polyamines of Thermosipho, Thermaerobacter and Caldicellulosiruptor)
RN 143085-76-1 CAPLUS
CN 1-Butanaminium, 4-amino-N,N,N-tris(3-aminopropyl)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE
FORMAT

L30 ANSWER 6 OF 41 CAPLUS COPYRIGHT 2003 ACS on STN
AB Cellular polyamines of eight new thermophilic archaebacteria were investigated to det. the chemotaxonomic significance of polyamine distribution profiles. Hyperthermoacidophilic Caldivirga maquilingensis belonging to the family Thermoproteaceae of the Crenarchaeota have a unique polyamine profile comprising spermidine, norspermidine and norspermine as the major polyamines. Within the order Thermococcales of the Euryarchaeota, the major polyamines of an extremely thermophilic terrestrial species of Thermococcus, T. zilligii, were spermidine and agmatine, whereas hyperthermophilic submarine species of Thermococcus and hyperthermophilic submarine Palaeococcus ferrophilus contained a quaternary branched penta-amine, N4-bis(aminopropyl)spermidine, as a major polyamine. A hyperthermophilic methanogen, Methanothermus sociabilis, belonging to Euryarchaeota, contained spermidine and spermine as the major polyamine.
ACCESSION NUMBER: 2001:186960 CAPLUS
DOCUMENT NUMBER: 134:323232
TITLE: Polyamines of the hyperthermophilic archaebacteria belonging to the genera Thermococcus and Methanothermus and two new genera Caldivirga and Palaeococcus
AUTHOR(S): Hamana, Koei; Itoh, Takashi
CORPORATE SOURCE: Gunma University School of Health Sciences, Gunma, 371-8514, Japan
SOURCE: Microbios (2001), 104(408), 105-114
CODEN: MCBI57; ISSN: 0026-2633
PUBLISHER: Faculty Press
DOCUMENT TYPE: Journal
LANGUAGE: English
IT 143085-76-1
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)
(polyamines of archaebacteria)
RN 143085-76-1 CAPLUS
CN 1-Butanaminium, 4-amino-N,N,N-tris(3-aminopropyl)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE
FORMAT

L30 ANSWER 7 OF 41 CAPLUS COPYRIGHT 2003 ACS on STN
AB Polyamines were identified in a thermophilic, sulfide-oxidizing bacterium.
Comparable polyamines were found in Aqui9fex, Hydrogenobacter, and Calderobacterium.
ACCESSION NUMBER: 2001:30292 CAPLUS
DOCUMENT NUMBER: 134:204849
TITLE: Occurrence of quaternary branched penta-amines in a large sausage-shaped thermophilic sulfide-oxidizing bacterium predominated in hot spring sulfur-turf bacterial mats
AUTHOR(S): Hamana, Koei; Kato, Kenji
CORPORATE SOURCE: School of Health Sciences, Faculty of Medicine, Gunma University, Maebashi, 371-8514, Japan
SOURCE: Journal of General and Applied Microbiology (2000), 46(3), 179-182
CODEN: JGAMA9; ISSN: 0022-1260
PUBLISHER: Microbiology Research Foundation
DOCUMENT TYPE: Journal
LANGUAGE: English
IT 143085-76-1
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)
(polyamines in large sausage-shaped thermophilic sulfide-oxidizing bacterium from hot spring sulfur-turf bacterial mats)
RN 143085-76-1 CAPLUS
CN 1-Butanaminium, 4-amino-N,N,N-tris(3-aminopropyl)- (9CI) (CA INDEX NAME)

REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE
FORMAT

L30 ANSWER 8 OF 41 CAPLUS COPYRIGHT 2003 ACS on STN
AB An aq. hair conditioner compn. contains a mixt. of .gtoreq.1 quaternary ammonium compd. R1C(O)NHCH2CH2N+R3R4CH2CH2NHC(O)R2 Y- [I; R1, R2 = C8-22 (hydroxy)alkyl or -alkenyl; R3, R4 = C1-3 alkyl, CH2CH2O(CH2CH2O)nH; n = 0-5; Y- = anion] 0.1-20, .gtoreq.1 C10-24 fatty alc. 0.5-20, and .gtoreq.1
(preferably nonionic) emulsifier 0.5-20 wt.%. Thus, a hair rinse contained cetostearyl alc. 1.00, almond oil 0.50, PEG-7-glyceryl cocoate 0.50, hydroxyethylcellulose 1.00, sucrose 0.50, benzophenone-4 0.30, dimethicone copolyol beeswax 0.80, I [R1 = R2 = oleyl, R3 = Me, R4 = (CH2CH2O)3H, Y- = MeSO4-] 1.00, decyl glucoside 0.50, 1,2-propylene glycol
1.00, dimethicone 0.20, behentrimonium chloride 0.40, parabens 0.20, perfume 0.30, dye 0.20, and H2O to 100.00 wt.%.
ACCESSION NUMBER: 2000:593006 CAPLUS
DOCUMENT NUMBER: 133:182718
TITLE: Hair conditioner
INVENTOR(S): Grit, Mustafa
PATENT ASSIGNEE(S): Goldwell G.m.b.H., Germany
SOURCE: Ger. Offen., 8 pp.
CODEN: GWXBDX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

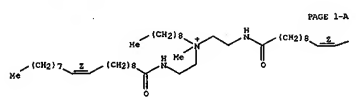
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19907408	A1	20000824	DE 1999-19907408	19990220
PRIORITY APPLN. INFO.:			DE 1999-19907408	19990220
OTHER SOURCE(S):		MARPAT 133:182718		

IT 288580-00-7
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(hair conditioner)
RN 288580-00-7 CAPLUS
CN 1-Nonanaminium, N-methyl-N,N-bis[2-[[(10Z)-1-oxo-10-nonadecenyl]amino]ethyl]-, methyl sulfate (9CI) (CA INDEX NAME)

CM 1

CRN 288579-99-7
CMF C52 H102 N3 O2

Double bond geometry as shown.



PAGE 1-A

L30 ANSWER 8 OF 41 CAPLUS COPYRIGHT 2003 ACS on STN (continued)

PAGE 1-B

CM 2

CRN 21228-90-0
CMF C H3 O4 S

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE
FORMAT

L30 ANSWER 9 OF 41 CAPLUS COPYRIGHT 2003 ACS on STN

AB An aq. hair-dyeing and -tinting compn. contains a mixt. of .gtoreq.1 cationic direct hair dye and .gtoreq.1 quaternary ammonium compd. R1C(O)NHCH2CH2N+R3R4CH2CH2NHC(O)R3 Y- [I; R1, R2 = C8-22 (hydroxy)alkyl or -alkenyl; R3, R4 = C1-3 alkyl, CH2CH2O(CH2CH2O)xH; x = 0-5; Y- = anion]. Addn. of I to the compn. improves the intensity, brilliance, and fastness of coloring. Thus, a hair tint/conditioner compn. contained cetostearyl alc. 5.00, iso-Pr myristate 0.50, benzophenone-4 0.30, I [R1 = R2 = oleyl, R3 = Me, R4 = (CH2CH2O)3H, Y- = MeSO4-] 2.00, hydroxypropylguar hydroxypropyltrimonium chloride 0.40, panthenol 0.50, isostearylglyceryl pentaerythrityl ether 0.20, citric acid 0.30, NaOH 0.15, perfume 0.40, preservative 0.15, Basic Brown 17 0.12, Basic Brown 16 0.06, Basic Blue 99 0.05, and H2O to 100.00 wt.%.

ACCESSION NUMBER: 2000:593004 CAPLUS
DOCUMENT NUMBER: 133:182717
TITLE: Agent for coloring and tinting human hair
INVENTOR(S): Grit, Mustafa
PATENT ASSIGNEE(S): Goldwell G.m.b.H., Germany
SOURCE: Ger. Offen., 8 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19907381	A1	20000824	DE 1999-19907381	19990220
DE 19907381	C2	20011011		

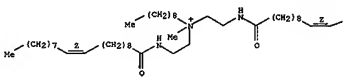
PRIORITY APPLN. INFO.: DE 1999-19907381 19990220
OTHER SOURCE(S): MARPAT 133:182717
IT 288580-00-7
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(agent for coloring and tinting human hair)
RN 288580-00-7 CAPLUS
CN 1-Nonanaminium, N-methyl-N,N-bis[2-[[(10Z)-1-oxo-10-nonadecenyl]amino]ethyl]-, methyl sulfate (9CI) (CA INDEX NAME)

CM 1

CRN 288579-99-7
CMF C52 H102 N3 O2

Double bond geometry as shown.

PAGE 1-A



L30 ANSWER 9 OF 41 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)

PAGE 1-B

CM 2

CRN 21228-90-0
CMF C H3 O4 S

L30 ANSWER 10 OF 41 CAPLUS COPYRIGHT 2003 ACS on STN

AB An aq. body cleanser, esp. a shampoo, contains a mixt. of .gtoreq.1 anionic surfactant 2.5-25%, .gtoreq.1 nonionic surfactant 2.5-25%, and .gtoreq.1 quaternary ammonium compd. R1C(O)NHCH2CH2N+R3R4CH2CH2NHC(O)R3 Y- [I; R1, R2 = C8-22 (hydroxy)alkyl or -alkenyl; R3, R4 = C1-3 alkyl, CH2CH2O(CH2CH2O)xH; x = 0-5; Y- = anion]. The compn. is stable, is nonirritating to the skin and mucosae, and has excellent foaming and hair-conditioning properties. When formulated with a direct dye as a tinting shampoo, it confers high luster and fastness on the hair color produced. Thus, a shampoo for normal hair contained Na alkyl ether sulfate 10.0, coco amphoacetate 3.0, C12-14-alkyl polyglucoside 3.5, polyquaternium-10 0.4, I [R1 = R2 = oleyl, R3 = Me, R4 = (CH2CH2O)3H, Y- = MeSO4-] 1.0, perfume 0.4, preservative 0.3, citric acid to pH 5.5, and H2O to 100.0 parts.

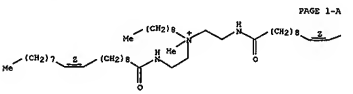
ACCESSION NUMBER: 2000:593003 CAPLUS
DOCUMENT NUMBER: 133:182716
TITLE: Liquid body cleanser containing quaternary ammonium compound and anionic and nonionic surfactants
INVENTOR(S): Grit, Mustafa
PATENT ASSIGNEE(S): Goldwell G.m.b.H., Germany
SOURCE: Ger. Offen., 8 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19907376	A1	20000824	DE 1999-19907376	19990220

PRIORITY APPLN. INFO.: DE 1999-19907376 19990220
OTHER SOURCE(S): MARPAT 133:182716
IT 288579-99-7 288580-00-7
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(liq. body cleanser contg. quaternary ammonium compd. and anionic and nonionic surfactants)
RN 288579-99-7 CAPLUS
CN 1-Nonanaminium, N-methyl-N,N-bis[2-[[(10Z)-1-oxo-10-nonadecenyl]amino]ethyl]- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-A



L30 ANSWER 10 OF 41 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)

PAGE 1-B

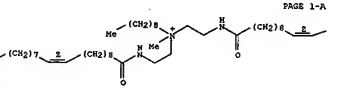
RN 288580-00-7 CAPLUS
CN 1-Nonanaminium, N-methyl-N,N-bis[2-[[(10Z)-1-oxo-10-nonadecenyl]amino]ethyl]-, methyl sulfate (9CI) (CA INDEX NAME)

CM 1

CRN 288579-99-7
CMF C52 H102 N3 O2

Double bond geometry as shown.

PAGE 1-A



PAGE 1-B

CM 2

CRN 21228-90-0
CMF C H3 O4 S

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L30 ANSWER 11 OF 41 CAPLUS COPYRIGHT 2003 ACS on STN

AB An aq. hair dye or sunscreen contains a mixt. of (a) .gtoreq.1 quaternary ammonium compd. R1C(O)NHCH2CH2N+R3R4CH2CH2NHC(O)R2 Y- [I; R1, R2 = C8-22 (hydroxy)alkyl or -alkenyl; R3, R4 = C1-3 alkyl, CH2CH2O(CH2CH2O)nH; n = 0-5; Y- = anion] and (b) .gtoreq.1 anionic direct dye and/or anionic UV absorber. Addn. of I to the compn. increases the deposition and binding of the anionic active agent on the hair, and thereby improves the intensity and fastness of coloring or the degree of photoprotection, resp. Thus, a hair conditioner/sunscreen contained cetostearyl alc. 5.00, mineral oil 0.50, iso-Pr myristate 0.50, benzophenone-4 0.30, I [R1 = R2 = oleyl, R3 = Me, R4 = (CH2CH2O)3H, Y- = MeSO4-] 1.50, perfume 0.20, preservative, and H2O to 100.00 parts.

ACCESSION NUMBER: 2000:592996 CAPLUS
DOCUMENT NUMBER: 133:182715
TITLE: Hair treatment agent containing quaternary ammonium compound and anionic dye or UV absorber
INVENTOR(S): Grit, Mustafa
PATENT ASSIGNEE(S): Goldwell G.m.b.H., Germany
SOURCE: Ger. Offen., 10 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19907260	A1	20000824	DE 1999-19907260	19990220
DE 19907260	C2	20010712		
PRIORITY APPLN. INFO.:			DE 1999-19907260	19990220
OTHER SOURCE(S):		MARPAT 133:182715		

IT 288580-00-7
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(hair treatment agent contg. quaternary ammonium compd. and anionic dye or UV absorber)

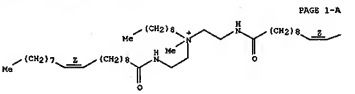
RN 288580-00-7 CAPLUS
CN 1-Nonenaminium, N-methyl-N,N-bis[2-[[(10Z)-1-oxo-10-nonadecenyl]amino]ethyl]-, methyl sulfate (9CI) (CA INDEX NAME)

CM 1

CRN 288579-99-7
CMF C52 H102 N3 O2

Double bond geometry as shown.

PAGE 1-A



L30 ANSWER 11 OF 41 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)

PAGE 1-B

CM 2

CRN 21228-90-0
CMF C H3 O4 S

L30 ANSWER 12 OF 41 CAPLUS COPYRIGHT 2003 ACS on STN

AB The present invention relates to synthetic cationic lipids, liposome formulations and the use of such compds. to introduce functional bioactive agents into cultured cells.

ACCESSION NUMBER: 2000:367983 CAPLUS
DOCUMENT NUMBER: 133:22412
TITLE: Cationic lipids for use liposomes for drug delivery
INVENTOR(S): Xiang, Gao
PATENT ASSIGNEE(S): Vanderbilt University, USA
SOURCE: PCT Int. Appl., 152 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000030444	A1	20000602	WO 1999-US27841	19991123
W: AU, CA, JP				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 6656498	B1	20031202	US 1999-447688	19991123
US 2003049310	A1	20030313	US 2002-224706	20020820
PRIORITY APPLN. INFO.:			US 1998-109950P P	19981125
			US 1998-110970P P	19981204
			US 1999-447688 A3	19991123
OTHER SOURCE(S):		MARPAT 133:22412		

IT 284491-49-2P
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(cationic lipids in liposomes for drug delivery)

RN 284491-49-2 CAPLUS
CN Butanedioic acid, polymer with N,N-bis(3-aminopropyl)-N-methyloctadecen-1-aminium chloride (9CI) (CA INDEX NAME)

CM 1

CRN 110-15-6
CMF C4 H6 O4

CM 2

CRN 284491-48-1
CMF C25 H54 N3 . Cl
CCI IDS

CM 3

CRN 284491-47-0
CMF C25 H56 N3

L30 ANSWER 12 OF 41 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L30 ANSWER 13 OF 41 CAPLUS COPYRIGHT 2003 ACS on STN

AB Polymers are formed in the presence of nucleic acid using template polymn.

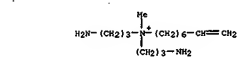
Also, polymn. occurs in heterophase systems. These methods can be used for the delivery of nucleic acids, for condensing the nucleic acid, for forming nucleic acid binding polymers, for forming supramol. complexes contg. nucleic acid and polymer, and for forming an interpolyelectrolyte complex. Step polymn. with DNA as a template was performed using N,N'-bis(2-aminoethyl)-1,3-propanediamine and dithiobis(succinimidylpropionate). It was possible to obtain DNA-bound polyamide as a result of the polymn. and the resulting polymer can condense template DNA into compact structures.

ACCESSION NUMBER: 1999:708870 CAPLUS
DOCUMENT NUMBER: 131:327545
TITLE: Polymer formation in the presence of nucleic acid using template polymerization
INVENTOR(S): Wolff, Jon A.; Hagstrom, James E.; Budker, Vladimir G.
PATENT ASSIGNEE(S): Mirus Corporation, USA
SOURCE: PCT Int. Appl., 73 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9955825	A1	19991104	WO 1999-US8965	19990423
W: JP				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP 1073707	A1	20010207	EP 1999-920014	19990423
R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, NL, SE, IE				
PRIORITY APPLN. INFO.:			US 1998-70299 A	19980430
			WO 1999-US8965 W	19990423

IT 210292-09-4P 210292-18-5P 210292-22-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(polymer formation in the presence of nucleic acid using template polymn.)

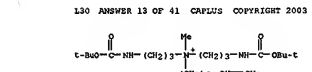
RN 210292-09-4 CAPLUS
CN 7-Octen-1-aminium, N,N-bis(3-aminopropyl)-N-methyl-, bromide (9CI) (CA INDEX NAME)



● Br⁻

RN 210292-18-5 CAPLUS
CN 7-Octen-1-aminium, N,N-bis[3-[[(1,1-dimethylethoxy)carbonyl]amino]propyl]-

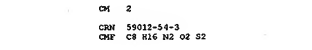
L30 ANSWER 13 OF 41 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)



● Br⁻

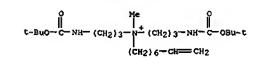
CM 2

CRN 59012-54-3
CMF C8 H16 N2 O2 S2



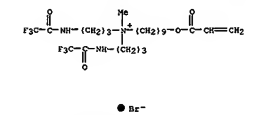
REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L30 ANSWER 13 OF 41 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)
N-methyl-, bromide (9CI) (CA INDEX NAME)



● Br⁻

RN 210292-22-1 CAPLUS
CN 1-Nonanaminium, N-methyl-9-[(1-oxo-2-propenyl)oxy]-N,N-bis[3-[(trifluoroacetyl)amino]propyl]-, bromide (9CI) (CA INDEX NAME)



● Br⁻

IT 248915-95-9P
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(polymer formation in the presence of nucleic acid using template polymn.)

RN 248915-95-9 CAPLUS
CN 7-Octen-1-aminium, N,N-bis[3-[[(1,1-dimethylethoxy)carbonyl]amino]propyl]-N-methyl-, bromide, polymer with dimethyl 3,3'-dithiobis[propanimidate] (9CI) (CA INDEX NAME)

CM 1

CRN 210292-18-5
CMF C25 H50 N3 O4 . Br

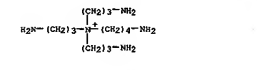
L30 ANSWER 14 OF 41 CAPLUS COPYRIGHT 2003 ACS on STN

AB Cellular polyamines of thermophilic eubacteria and archaebacteria were investigated for the chemotaxonomic significance of polyamine distribution profiles within thermophiles. A quaternary branched penta-amine, N4-bis(aminopropyl)norspermidine, and another quaternary branched penta-amine, N4-bis (aminopropyl)spermidine, were the main polyamines in the thermophilic eubacteria, Aquifex pyrophilus and Thermodesulfobacterium mobile, resp. These quaternary amines and linear hexa-amines were also found in Thermus thermophilus but not detected in the new Thermus species, T. brockianus and T. oshimai, and Meiothermus species, M. chisnophilus and M. silvanus. In new members of Crenarchaeota, Sulfurisphaera ohwakuensis contained norspermidine, spermidine, norspermine and spermine. In addn. to these triamines and tetraamines, Stetteria hydrogenophila and Thermocladium modestius contained homocadpentanine and/or thermopentamine, and Sulfophobococcus zilligii contained Cadaverine and homospermidine. The main polyamine of the hyperthermophilic Euryarchaeota, Pyrococcus horikoshii and Thermococcus fumicolans, was N4-bis(aminopropyl)spermidine. Hyperthermophilic Methanothermus fervidus and Methanopyrus kandleri contained spermidine, spermine and agmatine, and lacked long and branched polyamines, suggesting that the distribution of long and branched polyamines are not essential for thermophilic methanogens.

ACCESSION NUMBER: 1999:329098 CAPLUS
DOCUMENT NUMBER: 131:113477
TITLE: Polyamines of the thermophilic eubacteria belonging to the genera Aquifex, Thermodesulfobacterium, Thermus and Meiothermus, and the thermophilic archaebacteria belonging to the genera Sulfurisphaera, Sulfophobococcus, Stetteria, Thermocladium, Pyrococcus, Thermococcus, Methanopyrus and Methanothermus
AUTHOR(S): Hamana, K.; Hamana, H.; Shinozawa, T.; Niitsu, M.; Samejima, K.; Itoh, T.
CORPORATE SOURCE: Gunma University School of Health Sciences, Gunma, 371-8514, Japan
SOURCE: Microbios (1999), 97(387), 117-130
CODEN: MCBIA7; ISSN: 0026-2633
PUBLISHER: Faculty Press
DOCUMENT TYPE: Journal
LANGUAGE: English

IT 143085-76-1
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)
(polyamines of thermophilic eubacteria and thermophilic archaebacteria)

RN 143085-76-1 CAPLUS
CN 1-Butanaminium, 4-amino-N,N,N-tris(3-aminopropyl)- (9CI) (CA INDEX NAME)



L30 ANSWER 14 OF 41 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)

REFERENCE COUNT: 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE
FORMAT

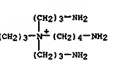
L30 ANSWER 15 OF 41 CAPLUS COPYRIGHT 2003 ACS on STN

AB Cellular polyamines of several thermophilic eubacteria and archaebacteria were investigated by high performance liq. chromatog. and gas chromatog. A hyperthermophilic eubacterium, Thermotoga maritima, contained a linear pentaamine and a linear hexaamine. The moderate thermophiles, Thermotoga elfii and Thermodesulfovibrio yellowstonii contained a linear pentaamine. A quaternary branched pentaamine, N4-bis(aminopropyl)spermidine, was the major polyamine in extremely thermophilic Thermolecphilum species. Long linear and branched polyamines occurred in the extreme thermophiles, Thermus and Rhodothermus, but were not detected in moderately thermophilic
Meiothermus. In archaebacteria, linear pentaamines were distributed in hyperthermophilic Aeropyrum. A moderately thermophilic hyperacidophile, Picrophilus, contained spermidine and lacked longer amines. N4-bis(aminopropyl)spermidine was found in a hyperthermophilic methanogen,
Methanococcus jannaschii, as a major polyamine, but not detected in extremely/moderately thermophilic Methanococcus and Methanobacterium species. This is the first report on the occurrence of quaternary branched polyamine in methanogenic archaebacteria. The chemotaxonomic and
phylogenetic significance of the distribution of long linear and branched polyamines possibly assocd. with their thermophily exist in the thermophiles.

ACCESSION NUMBER: 1998:645673 CAPLUS
DOCUMENT NUMBER: 129:341520
TITLE: Polyamines of the thermophilic eubacteria belonging to
the genera Thermotoga, Thermodesulfovibrio, Thermolecphilum, Thermus, Rhodothermus and Meiothermus, and the thermophilic archaebacteria belonging to the genera Aeropyrum, Picrophilus, Methanobacterium and Methanococcus
AUTHOR(S): Hamana, K.; Niitsu, M.; Samejima, K.; Itoh, T.; Hamana, M.; Shinozawa, T.
CORPORATE SOURCE: Gunma University School of Health Sciences, Gunma, 371, Japan
SOURCE: Microbios (1998), 93(377), 7-21
CODEN: MCBIA7; ISSN: 0026-2633
PUBLISHER: Faculty Press
DOCUMENT TYPE: Journal
LANGUAGE: English

IT 143085-76-1
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)
(polyamines of thermophilic eubacteria and thermophilic archaebacteria)

RN 143085-76-1 CAPLUS
CN 1-Butanaminium, 4-amino-N,N,N-tris(3-aminopropyl)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 47 THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE
FORMAT

L30 ANSWER 15 OF 41 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)

L30 ANSWER 16 OF 41 CAPLUS COPYRIGHT 2003 ACS on STN

AB A method of making a compd. for delivery to a cell comprising forming a polymer in the presence of a biol. active drug is disclosed.. A method of
forming polymers in the presence of nucleic acid using template polymn. and of having the polymn. occur in heterophase systems is further disclosed. These methods can be used for the delivery of nucleic acids, for condensing the nucleic acid, for forming nucleic acid-binding polymers, for forming supramol. complexes contg. nucleic acid and polymer,
and for forming an interpolyelectrolyte complex. The nuclear localizing peptide of SV40 T antigen was copolymd. with dithiobis(succinimidylpropion
ate] in the presence of plasmid DNA and this process enabled the formation
of complexes that expressed luciferase after transfection into 3T3 cells in culture.

ACCESSION NUMBER: 1998:485169 CAPLUS
DOCUMENT NUMBER: 129:118754
TITLE: Method for making a compound for delivery to cells by forming a polymer in the presence of a template drug, especially nucleic acid
INVENTOR(S): Wolff, Jon A.; Hagstrom, James E.; Budker, Vladimir G.; Trubetskoy, Vladimer S.; Slattum, Paul M.; Hanson, Lisa J.
PATENT ASSIGNEE(S): Mirus Corp., USA
SOURCE: PCT Int. Appl., 79 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 6
PATENT INFORMATION:

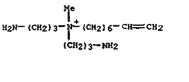
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9829541	A1	19980709	WO 1997-US24089	19971230
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 6126964	A	20001003	US 1997-778657	19970103
EP 958356	A1	19991124	EP 1997-954803	19971230
R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, NL, SE, IE				
US 2002061287	A1	20020523	US 2001-4763	20011205
US 2002085989	A1	20020704	US 2001-5294	20011205
PRIORITY APPLN. INFO.:			US 1997-778657	A 19970103
			US 1996-9593P	P 19960104
			WO 1997-US24089	W 19971230
			US 1999-464871	A3 19991216

OTHER SOURCE(S): MARPAT 129:118754

IT 210292-09-4P 210292-18-5P 210292-22-1P
RL: SPN (Synthetic preparation); PREP (Preparation)
(method for making compd. for delivery to cells by forming polymer in presence of template drug, esp. nucleic acid)

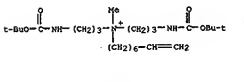
RN 210292-09-4 CAPLUS
CN 7-Octen-1-aminium, N,N-bis(3-aminopropyl)-N-methyl-, bromide (9CI) (CA INDEX NAME)

L30 ANSWER 16 OF 41 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)



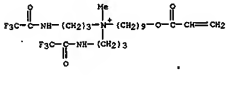
● Br⁻

RN 210292-18-5 CAPLUS
CN 7-Octen-1-aminium, N,N-bis[3-[[(1,1-dimethylethoxy)carbonyl]amino]propyl]-N-methyl-, bromide (9CI) (CA INDEX NAME)



● Br⁻

RN 210292-22-1 CAPLUS
CN 1-Nonanaminium, N-methyl-9-[(1-oxo-2-propenyl)oxy]-N,N-bis[3-[(trifluoroacetyl)amino]propyl]-, bromide (9CI) (CA INDEX NAME)



● Br⁻

IT 210292-10-7P
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(method for making compd. for delivery to cells by forming polymer in presence of template drug, esp. nucleic acid)
RN 210292-10-7 CAPLUS
CN 7-Octen-1-aminium, N,N-bis(3-aminopropyl)-N-methyl-, bromide, polymer with 3,3'-dithiobis[N-methylpropanamide] (9CI) (CA INDEX NAME)

CM 1

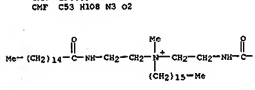
L30 ANSWER 17 OF 41 CAPLUS COPYRIGHT 2003 ACS on STN
AB Six new quaternary ammonium salt cationic surfactants with 3 long chain alkyl groups were prepd. from 4-alkyldiethylenetriamine and fatty acids through amidation and quaternization as softening agent for textiles. The synthesized surfactants were characterized by IR spectra and m.p. measurements.

ACCESSION NUMBER:	1997:735042 CAPLUS
DOCUMENT NUMBER:	127:347927
TITLE:	Synthesis of quaternary ammonium salt cationic surfactants with 3 long chain alkyl groups
AUTHOR(S):	Shi, Zhen; Wang, Yanmin; Wang, Xianhua
CORPORATE SOURCE:	Department Chemistry, Northwest University, Xian, 710069, Peop. Rep. China
SOURCE:	Xibei Daxue Xuebao, Ziran Kexueban (1996), 26(6), 499-501
	CODEN: HPHPAQ; ISSN: 1000-274X
PUBLISHER:	Xibei Daxue Xuebao Bianjibu
DOCUMENT TYPE:	Journal
LANGUAGE:	Chinese

IT 198333-46-9P 198333-48-1P 198333-49-2P
198333-50-5P 198333-51-6P 198333-52-7P
RL: MOA (Modifier or additive use); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(synthesis, m.p., and IR spectra of quaternary ammonium salt cationic surfactants from long-chain alkyl groups)
RN 198333-46-9 CAPLUS
CN 1-Hexadecanaminium, N-methyl-N,N-bis[2-[(1-oxohexadecyl)amino]ethyl]-, methyl sulfate (9CI) (CA INDEX NAME)

CM 1

CRN 198333-45-8
CMF C53 H108 N3 O2



CM 2

CRN 21228-90-0
CMF C H3 O4 S

$Me-O-SO_3^-$

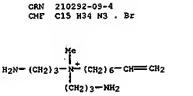
RN 198333-48-1 CAPLUS
CN 1-Octadecanaminium, N-methyl-N,N-bis[2-[(1-oxooctadecyl)amino]ethyl]-, methyl sulfate (9CI) (CA INDEX NAME)

CM 1

CRN 198333-47-0
CMF C59 H120 N3 O2

L30 ANSWER 16 OF 41 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)

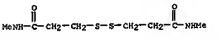
CRN 210292-09-4
CMF C15 H34 N3 . Br



● Br⁻

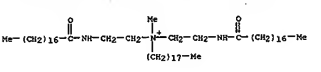
CM 2

CRN 999-72-4
CMF C8 H16 N2 O2 S2



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L30 ANSWER 17 OF 41 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)

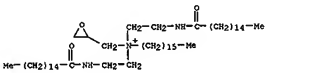


CM 2

CRN 21228-90-0
CMF C H3 O4 S

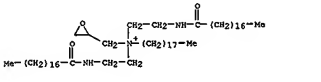
$Me-O-SO_3^-$

RN 198333-49-2 CAPLUS
CN Oxiranemethanaminium, N-hexadecyl-N,N-bis[2-[(1-oxohexadecyl)amino]ethyl]-, chloride (9CI) (CA INDEX NAME)



● Cl⁻

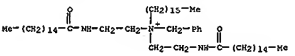
RN 198333-50-5 CAPLUS
CN Oxiranemethanaminium, N-octadecyl-N,N-bis[2-[(1-oxooctadecyl)amino]ethyl]-, chloride (9CI) (CA INDEX NAME)



● Cl⁻

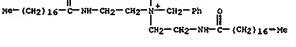
RN 198333-51-6 CAPLUS

L30 ANSWER 17 OF 41 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)
CN Benzenemethanaminium, N-hexadecyl-N,N-bis[2-[(1-oxohexadecyl)amino]ethyl]-, chloride (9CI) (CA INDEX NAME)



● Cl⁻

RN 198333-52-7 CAPLUS
CN Benzenemethanaminium, N-octadecyl-N,N-bis[2-[(1-oxooctadecyl)amino]ethyl]-, chloride (9CI) (CA INDEX NAME)



● Cl⁻

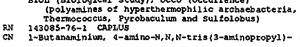
L30 ANSWER 18 OF 41 CAPLUS COPYRIGHT 2003 ACS on STN
AB The materials is prepd. by treating of fiber materials with complexes of antibacterial cationic and/or amphiphilic surfactants and org. phosphates or their salts. Thus, an antibacterial fiber is prepd. by treating of polyester jersey or acrylic muslin with a complex soln. prepd. by mixing of an aq. soln. of benzalkonium chloride and 7-Na diethylenetriamine penta(methylenephosphonate).
ACCESSION NUMBER: 1997:590304 CAPLUS
DOCUMENT NUMBER: 127:264165
TITLE: Organic phosphonate complex antibacterial fiber materials
INVENTOR(S): Umeda, Takashi; Hirose, Kotoe; Kishioka, Harukuni
PATENT ASSIGNEE(S): Senka Corp., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09228243	A2	19970902	JP 1996-89854	19960229
PRIORITY APPLN. INFO.:			JP 1996-89854	19960229

IT 76721-98-7
RL: TEM (Technical or engineered material use); USES (Uses)
(complexes with org. phosphonoic acids; org. phosphonoic acid complex antibacterial fiber materials)
RN 76721-98-7 CAPLUS
CN 1-Dodecanaminium, N,N-bis(2-aminoethyl)-N-(carboxymethyl)-, chloride (9CI)
(CA INDEX NAME)

● Cl⁻

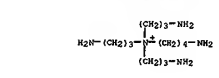
L30 ANSWER 19 OF 41 CAPLUS COPYRIGHT 2003 ACS on STN
AB The five hyperthermophilic archaebacteria located on the phylogenetically divergent four orders of Archaeoglobales, Thermococcales, Thermoproteales and Sulfolobales, resp., varied in their cellular polyamine components. Archaeoglobus fulgidus and Archaeoglobus profundus contained two quaternary branched penta-amines, N4-bis(aminopropyl)spermidine and N4-bis(aminopropyl)-norspermidine, as a major polyamine in addn. to spermidine and spermine. Spermidine, spermine, a tertiary branched tetra-amine, N4-aminopropylspermidine, and N4-bis(aminopropyl)spermidine were the major polyamines and canavalmine was the minor polyamine in Thermococcus peptonophilus. Pyrobaculum aerophilum and Sulfolobus hakonensis contained norspermidine, spermidine and norspermine as the major polyamines but they lacked either branched or long linear polyamines.
ACCESSION NUMBER: 1997:95001 CAPLUS
DOCUMENT NUMBER: 126:183564
TITLE: Polyamines of hyperthermophilic archaebacteria, Archaeoglobus, Thermococcus, Pyrobaculum and Sulfolobus
AUTHOR(S): Hamana, Koei; Hamana, Hiroshi; Niitsu, Masaru; Samejima, Keijiro; Itoh, Takashi
CORPORATE SOURCE: Coll. Med. Care Technology, Gunma Univ., Gunma, 371, Japan
SOURCE: Microbios (1996), 87(351), 69-76
CODEN: MCBIA7; ISSN: 0026-2633
PUBLISHER: Faculty Press
DOCUMENT TYPE: Journal
LANGUAGE: English
IT 143085-76-1
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)
(polyamines of hyperthermophilic archaebacteria, Archaeoglobus, Thermococcus, Pyrobaculum and Sulfolobus)
RN 143085-76-1 CAPLUS
CN 1-Butanaminium, 4-amino-N,N,N-tris(3-aminopropyl)- (9CI) (CA INDEX NAME)



L30 ANSWER 20 OF 41 CAPLUS COPYRIGHT 2003 ACS on STN
AB Polyamines of the seeds, seedlings, and some other tissues of 15 leguminous plants were analyzed by high performance liq. chromatog. and gas chromatog. A novel tertiary branched pentaamine, N5-aminobutylhomospermine, was detected in the seed of Vicia villosa and another novel quaternary branched pentaamine, N4-bis(aminopropyl)spermidine, in the seed of Crotalaria spectabilis. Norspermine and a novel linear pentaamine, caldopentamine, were found in the seed of Gleditschia japonica. Other unusual polyamines such as norspermidine, homospermidine, thermospermine, N4-methylthermospermine, homospermine, and N-(3-aminopropyl)aminopropanol occur widely within leguminous seeds. Nine groups of plant response were found with respect to increases of diaminopropane, putrescine, cadaverine, and agmatine in the leguminous seedlings after germination.
ACCESSION NUMBER: 1997:8218 CAPLUS
DOCUMENT NUMBER: 126:72607
TITLE: Further polyamine analyses of leguminous seeds and seedlings: the occurrence of novel linear, tertiary branched and quaternary branched pentaamines
AUTHOR(S): Hamana, Koei; Niitsu, Masaru; Samejima, Keijiro
CORPORATE SOURCE: College of Medical Care and Technology, Gunma University, Gunma, 371, Japan
SOURCE: Canadian Journal of Botany (1996), 74(11), 1766-1772
CODEN: CJBOAW; ISSN: 0008-4026
PUBLISHER: National Research Council of Canada
DOCUMENT TYPE: Journal
LANGUAGE: English
IT 143085-76-1
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)
(polyamine anal. of leguminous seeds and seedlings)
RN 143085-76-1 CAPLUS
CN 1-Butanaminium, 4-amino-N,N,N-tris(3-aminopropyl)- (9CI) (CA INDEX NAME)

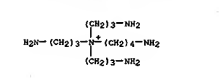
L30 ANSWER 21 OF 41 CAPLUS COPYRIGHT 2003 ACS on STN
AB Polyamines of seventeen strains of thermophilic Gram-pos. anaerobes belonging to seven genera of clostridia were analyzed by high-performance liq. chromatog. and gas chromatog. Caldicellulosiruptor contained spermidine, spermine, thermospermine, thermopentamine, two tertiary branched tetraamines [N4-aminopropylspermidine and N4-aminopropylnorspermidine] and two quaternary branched pentaamines [N4-bis(aminopropyl)spermidine and N4-bis(aminopropyl)norspermidine]. The major polyamines of Caloramator, Coprothermobacter, Moorella, Thermoanaerobacter, Thermoanaerobacterium and thermophilic Clostridium were putrescine, spermidine and spermine. N4-aminopropylspermidine and N4-bis(aminopropyl)spermidine were found as minor polyamines in some cultures of Moorella and Thermoanaerobacter.

ACCESSION NUMBER: 1996:423666 CAPLUS
DOCUMENT NUMBER: 125:81445
TITLE: Polyamines of thermophilic Gram-positive anaerobes belonging to the genera Caldicellulosiruptor, Caloramator, Clostridium, Coprothermobacter, Moorella, Thermoanaerobacter and Thermoanaerobacterium
AUTHOR(S): Hamana, Koei; Hamana, Hiroshi; Niitsu, Masaru; Samejima, Keijiro
CORPORATE SOURCE: Coll. Medical Care Technol., Gunma Univ., Gunma, 371, Japan
SOURCE: Microbios (1996), 85(345), 213-222
CODEN: MCBIA7; ISSN: 0026-2633
PUBLISHER: Faculty Press
DOCUMENT TYPE: Journal
LANGUAGE: English
IT 143085-76-1
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)
(polyamines of thermophilic Gram-pos. anaerobes)
RN 143085-76-1 CAPLUS
CN 1-Butanaminium, 4-amino-N,N,N-tris(3-aminopropyl)- (9CI) (CA INDEX NAME)



L30 ANSWER 22 OF 41 CAPLUS COPYRIGHT 2003 ACS on STN
AB Polyamines of thermophilic eubacteria and hyperthermophilic archaebacteria were analyzed by high-performance liq. chromatog. and gas chromatog. Thermotoga, Petrotoga, Fervidobacterium and Dictyoglomus contained tetraamines such as spermine, norspermine and thermospermine, penta-amines such as caldopentamine, homocaldopentamine and thermopentamine, and a hexa-amine, caldohexamine. These linear polyamines and the quaternary branched pentaamines, N4-bis(aminopropyl)spermidine and N4-bis(aminopropyl)norspermidine were found in Thermoanaerobacter cellulolyticus. N4-bis(aminopropyl)spermidine, spermidine and spermine were the polyamine components of the other authentic Thermoanaerobacter species. The main polyamine of Thermodesulfobacterium commune was N4-bis(aminopropyl)spermidine. In archaebacteria, an unusual triamine, homospermidine, occurred in Desulfurococcus and Staphylothermus. Caldopentamine, thermopentamine and caldohexamine were detected in Pyrodictium, Hyperthermus and Staphylothermus. Thermoproteus and Pyrobaculum contained tri- and tetra-amines but lacked long linear and branched polyamines. The long linear and branched polyamines are widely distributed in thermophilic eubacteria and archaebacteria and are chemotaxonomically useful in the thermophiles.

ACCESSION NUMBER: 1996:393216 CAPLUS
DOCUMENT NUMBER: 125:53207
TITLE: Distribution of long linear and branched polyamines in thermophilic eubacteria and hyperthermophilic archaebacteria
AUTHOR(S): Hamana, Koei; Hamana, Hiroshi; Niitsu, Masaru; Samejima, Keijiro; Itoh, Takashi
CORPORATE SOURCE: Coll. Medical Care Technol., Gunma Univ., Gunma, 371, Japan
SOURCE: Microbios (1996), 85(342), 19-33
CODEN: MCBIA7; ISSN: 0026-2633
PUBLISHER: Faculty Press
DOCUMENT TYPE: Journal
LANGUAGE: English
IT 143085-76-1
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)
(distribution of long linear and branched polyamines in thermophilic subacteria and hyperthermophilic archaebacteria)
RN 143085-76-1 CAPLUS
CN 1-Butanaminium, 4-amino-N,N,N-tris(3-aminopropyl)- (9CI) (CA INDEX NAME)

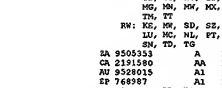


L30 ANSWER 23 OF 41 CAPLUS COPYRIGHT 2003 ACS on STN
AB Water is treated with Ag+ ions at 0.001-500 ppm as an antimicrobial agent, accompanied by a complexing agent to render the ions more effective, more stable or both. The complexing agent is an org. ligand, esp. with .gtoreq.3 carboxylate groups, which forms a sol. complex with Ag+ ions. Preferred are amphoteric/zwitterionic surfactants and polyethers, e.g. Amphobac 4.

ACCESSION NUMBER: 1996:133071 CAPLUS
DOCUMENT NUMBER: 124:155580
TITLE: Disinfection of water with silver ions and complexing agents
INVENTOR(S): Carr, Stuart William; Lambert, Ronald Joseph
PATENT ASSIGNEE(S): Unilever N.V., Neth.; Unilever Plc
SOURCE: PCT Int. Appl., 24 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

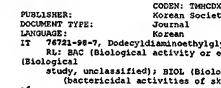
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9601231	A1	19960118	WO 1995-GB1540	19950629
W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TT				
RW: KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
ZA 9505353	A	19961230	ZA 1995-5353	19950629
CA 2191580	AA	19960118	CA 1995-2191580	19950629
AU 9528015	A1	19960125	AU 1995-28015	19950629
EP 768987	A1	19970423	EP 1995-923461	19950629
R: CH, DE, ES, FR, GB, IT, LI, NL, SE				
BR 9508174	A	19971111	BR 1995-8174	19950629
PRIORITY APPLN. INFO.:			GB 1994-13299	19940701
			WO 1995-GB1540	19950629

IT 89807-33-0, Amphobac 4
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(disinfection of water with silver ions and complexing agents)
RN 89807-33-0 CAPLUS
CN 1-Dodecanaminium, N,N-bis(2-aminoethyl)-N-(carboxymethyl)-, inner salt (9CI) (CA INDEX NAME)



L30 ANSWER 24 OF 41 CAPLUS COPYRIGHT 2003 ACS on STN
AB Disinfection is a method by which the resident flora of the pathogenic organisms are removed or killed. In this study, a comparative test was conducted to evaluate the bactericidal activities of 6 kinds of hospital hand disinfestants by using AOAC and BSI Chick-Martin methods. Antimicrobial activities of each disinfectant were specific to each test organism in both AOAC and BSI Chick-Martin method. SEM study showed that Bacillus subtilis treated with benzalkonium chloride underwent the characteristic morphol. change of bactlii to round form. However, the same organisms treated with the other disinfectants were less sensitive to morphol. changes and a large no. of substrates were obsd. to be attached to their cell surfaces. Other test microorganisms treated with benzalkonium chloride underwent the characteristic morphol. change of bacilli to round forms and showed a large no. of substrates attached to their cell surface. Staphylococcus aureus, however, developed into a large-sized form.

ACCESSION NUMBER: 1995:593040 CAPLUS
DOCUMENT NUMBER: 123:29400
TITLE: Morphological changes of bacteria by skin disinfectants
AUTHOR(S): Lee, Kil-Ung; Ju, Young-Ran; Park, Man-Suck; Oh, Kyung-Soo; Lee, Kwang-Jun; Lee, Yun-Jin; Lim, Jai-Yun
CORPORATE SOURCE: Div. Microbiol. Chem., National Inst. Health, Seoul, 122-020, S. Korea
SOURCE: Taehan Misaengmul Hakhoechi (1995), 30(1), 45-55
CODEN: TMHCDK; ISSN: 0253-3162
PUBLISHER: Korean Society for Microbiology
DOCUMENT TYPE: Journal
LANGUAGE: Korean
IT 76721-98-7, Dodecyldiaminoethylglycine hydrochloride
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(bactericidal activities of skin disinfectants compared on the basis of bacterial morphol. changes)
RN 76721-98-7 CAPLUS
CN 1-Dodecanaminium, N,N-bis(2-aminoethyl)-N-(carboxymethyl)-, chloride (9CI)
(CA INDEX NAME)



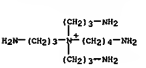
L30 ANSWER 25 OF 41 CAPLUS COPYRIGHT 2003 ACS on STN

AB Polyamines of thermophilic archaebacteria were analyzed by HPLC and gas chromatog. Thermoplasma acidophilum and Thermoplasma volcanium ubiquitously contained spermidine and spermine. Four spp. of Sulfolobus, S. acidocaldarius, S. solfataricus, S. metallicus, and S. shibatae, 2 spp. of Acidianus, A. brierleyi and A. infernus, and Metallosphaera sedula contained norspermidine and norspermine in addn. to spermidine and spermine, but quant. distribution profiles were species-specific. A tertiary tetraamine, N4-aminopropylspermidine, and a quaternary pentaamine, N4-bis(aminopropyl)spermidine, were detected as major polyamines in 3 spp. of Thermococcus, T. celer, T. litoralis, and T. stetteri, and 2 Pyrococcus spp., P. furiosus and P. woesei. This is the 1st report of the occurrence of branched polyamines in archaebacteria.

ACCESSION NUMBER: 1995:82668 CAPLUS
DOCUMENT NUMBER: 122:3033
TITLE: Occurrence of tertiary and quaternary branched polyamines in thermophilic archaebacteria
AUTHOR(S): Hamana, Koei; Hamana, Hiroshi; Niitsu, Masaru; Samejima, Keijiro; Sakane, Takeshi; Yokota, Akira
CORPORATE SOURCE: Coll. Med. Care Technol., Gunma Univ., Maebashi, 371, Japan
SOURCE: Microbios (1994), 79(319), 109-19
CODEN: MCBIA7; ISSN: 0026-2633
DOCUMENT TYPE: Journal
LANGUAGE: English

IT 143085-76-1
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)
(tertiary and quaternary branched polyamines in thermophilic archaebacteria)

RN 143085-76-1 CAPLUS
CN 1-Butanaminium, 4-amino-N,N,N-tris(3-aminopropyl)- (9CI) (CA INDEX NAME)



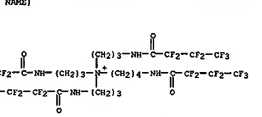
L30 ANSWER 26 OF 41 CAPLUS COPYRIGHT 2003 ACS on STN

AB Using heptafluorobutyryl derivs. of 27 linear di-, tri-, tetra-, penta- and hexaamines contg. various sets of isomers, and 4 tertiary tetraamines and 5 quaternary pentaamines, mostly with 3 or 4 methylene chain units, their gas chromatog. (GC) and gas chromatog.-mass spectrometric (GC-MS) properties were compared and examd. Several results useful for their systematic anal. were found: assured baseline sepn. of 1 methylene difference in linear di- and polyamines and tertiary tetraamines by GC; distinct pyrolytic decompn. patterns of quaternary pentaamines by GC; distinct cleavage patterns of 3 or 4 methylene chain units by GC-MS; and distinct mass spectra of linear polyamines and tertiary tetraamines by GC-MS.

ACCESSION NUMBER: 1993:551383 CAPLUS
DOCUMENT NUMBER: 119:151383
TITLE: Systematic analysis of naturally occurring linear and branched polyamines by gas chromatography and gas chromatography-mass spectrometry
AUTHOR(S): Niitsu, Masaru; Samejima, Keijiro; Matsuzaki, Shigeru; Hamana, Koei
CORPORATE SOURCE: Faculty of Pharmaceutical Sciences, Josai University, 1-1 Keyakidai, Sakado, Saitama, 350-02, Japan
SOURCE: Journal of Chromatography (1993), 641(1), 115-23
CODEN: JOCRAM; ISSN: 0021-9673
DOCUMENT TYPE: Journal
LANGUAGE: English

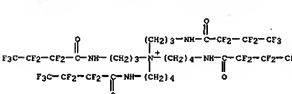
IT 149981-89-5 149981-90-8 149981-91-9
149981-92-0
RL: ANT (Analyte); ANST (Analytical study)
(gas chromatog. and mass spectrometry of)

RN 149981-89-5 CAPLUS
CN 1-Butanaminium, 4-[(2,2,3,3,4,4,4-heptafluoro-1-oxobutyl)amino]-N,N,N-tris[3-[(2,2,3,3,4,4,4-heptafluoro-1-oxobutyl)amino]propyl]- (9CI) (CA INDEX NAME)

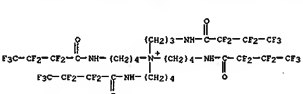


RN 149981-90-8 CAPLUS
CN 1-Butanaminium, 4-[(2,2,3,3,4,4,4-heptafluoro-1-oxobutyl)amino]-N-[4-[(2,2,3,3,4,4,4-heptafluoro-1-oxobutyl)amino]butyl]-N,N-bis[3-[(2,2,3,3,4,4,4-heptafluoro-1-oxobutyl)amino]propyl]- (9CI) (CA INDEX NAME)

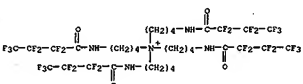
L30 ANSWER 26 OF 41 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)



RN 149981-91-9 CAPLUS
CN 1-Butanaminium, 4-[(2,2,3,3,4,4,4-heptafluoro-1-oxobutyl)amino]-N,N-bis[4-[(2,2,3,3,4,4,4-heptafluoro-1-oxobutyl)amino]butyl]-N-[3-[(2,2,3,3,4,4,4-heptafluoro-1-oxobutyl)amino]propyl]- (9CI) (CA INDEX NAME)



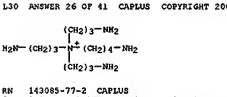
RN 149981-92-0 CAPLUS
CN 1-Butanaminium, 4-[(2,2,3,3,4,4,4-heptafluoro-1-oxobutyl)amino]-N,N,N-tris[4-[(2,2,3,3,4,4,4-heptafluoro-1-oxobutyl)amino]butyl]- (9CI) (CA INDEX NAME)



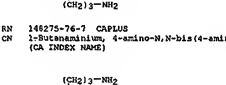
IT 143085-76-1 143085-77-2 148275-76-7
148275-81-4
RL: PRP (Properties); ANST (Analytical study)
(gas chromatog.-mass spectrometry of, as heptafluorobutyryl deriv.)

RN 143085-76-1 CAPLUS
CN 1-Butanaminium, 4-amino-N,N,N-tris(3-aminopropyl)- (9CI) (CA INDEX NAME)

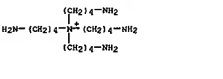
L30 ANSWER 26 OF 41 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)



RN 143085-77-2 CAPLUS
CN 1-Butanaminium, 4-amino-N-(4-aminobutyl)-N,N-bis(3-aminopropyl)- (9CI) (CA INDEX NAME)



RN 148275-76-7 CAPLUS
CN 1-Butanaminium, 4-amino-N,N-bis(4-aminobutyl)-N-(3-aminopropyl)- (9CI) (CA INDEX NAME)



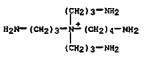
RN 148275-81-4 CAPLUS
CN 1-Butanaminium, 4-amino-N,N,N-tris(4-aminobutyl)- (9CI) (CA INDEX NAME)

L30 ANSWER 27 OF 41 CAPLUS COPYRIGHT 2003 ACS on STN

AB Tertiary tetraamines and quaternary pentaamines composed of aminopropyl and/or aminobutyl groups were synthesized as authentic samples for the identification of naturally occurring branched polyamines. Four tertiary tetraamines, including [H2N(CH2)n]3N.4HCl (n = 3, 4) and [H2N(CH2)3]2N(CH2)4NH2.HCl, were obtained by alkylating the free secondary amine group of diphthaloyl derivs. of sym-norspermidine or sym-homospermidine with N-(3-bromopropyl)phthalimide or N-(4-bromobutyl)phthalimide in the presence of KF-Celite. Five quaternary pentaamines, e.g., (H2N(CH2)n]4N+ Cl-.4HCl (n = 3, 4), were obtained by fuming triphthaloyl deriva. of the tertiary tetrzamines with an excess amt. of N-(3-iodopropyl)phthalimide or N-(4-iodobutyl)phthalimide. The present methods are simple and achieved high yields. The 13C-NMR spectra of these branched polyamines were recorded in D2O as fully protonated forms, and all 13C chem. shifts were assigned consistently.

ACCESSION NUMBER: 1993:427654 CAPLUS
DOCUMENT NUMBER: 119:27654
TITLE: Syntheses of tertiary tetraamines and quaternary pentaamines with three and four methylene chain units
AUTHOR(S): Mitsui, Masaru; Sano, Hiroo; Samejima, Keijiro
CORPORATE SOURCE: Fac. Pharm. Sci., Josai Univ., Sakado, 350-02, Japan
SOURCE: Chemical & Pharmaceutical Bulletin (1992), 40(11), 2958-61
CODEN: CPBTAL; ISSN: 0009-2363
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 119:27654
IT 148275-61-0P 148275-62-1P 148275-63-2P
148275-64-3P 148275-70-1P 148275-76-7P
148275-80-3P 148275-83-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 148275-61-0 CAPLUS
CN 1-Butanaminium, 4-amino-N,N,N-tris(3-aminopropyl)-, chloride, tetrahydrochloride (9CI) (CA INDEX NAME)

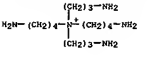


● Cl-

●4 HCl

RN 148275-62-1 CAPLUS
CN 1-Butanaminium, 4-amino-N-(4-aminobutyl)-N,N-bis(3-aminopropyl)-, chloride, tetrahydrochloride (9CI) (CA INDEX NAME)

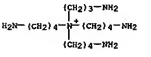
L30 ANSWER 27 OF 41 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)



● Cl-

●4 HCl

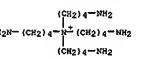
RN 148275-63-2 CAPLUS
CN 1-Butanaminium, 4-amino-N,N-bis(4-aminobutyl)-N-(3-aminopropyl)-, chloride, tetrahydrochloride (9CI) (CA INDEX NAME)



● Cl-

●4 HCl

RN 148275-64-3 CAPLUS
CN 1-Butanaminium, 4-amino-N,N,N-tris(4-aminobutyl)-, chloride, tetrahydrochloride (9CI) (CA INDEX NAME)



● Cl-

●4 HCl

L30 ANSWER 27 OF 41 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)

RN 148275-70-1 CAPLUS
CN 1-Butanaminium, 4-amino-N,N,N-tris(3-aminopropyl)-, perchlorate, tetraperchlorate (9CI) (CA INDEX NAME)

CM 1

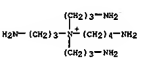
CRN 7601-90-3
CMF Cl H O4

CM 2

CRN 148275-69-8
CMF C13 H34 N5 . Cl O4

CM 3

CRN 143085-76-1
CMF C13 H34 N5



CM 4

CRN 14797-73-0
CMF Cl O4

RN 148275-78-9 CAPLUS
CN 1-Butanaminium, 4-amino-N,N-bis(4-aminobutyl)-N-(3-aminopropyl)-, perchlorate, tetraperchlorate (9CI) (CA INDEX NAME)

CM 1

CRN 7601-90-3
CMF Cl H O4

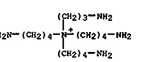
L30 ANSWER 27 OF 41 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)

CM 2

CRN 148275-77-8
CMF C15 H38 N5 . Cl O4

CM 3

CRN 148275-76-7
CMF C15 H38 N5



CM 4

CRN 14797-73-0
CMF Cl O4

RN 148275-80-3 CAPLUS
CN 1-Butanaminium, 4-amino-N-(4-aminobutyl)-N,N-bis(3-aminopropyl)-, perchlorate, tetraperchlorate (9CI) (CA INDEX NAME)

CM 1

CRN 7601-90-3
CMF Cl H O4

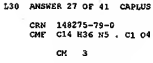
CM 2

L30 ANSWER 27 OF 41 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)

CRN 148275-79-0
CMF C14 H36 N5 . Cl O4

CM 3

CRN 143085-77-2
CMF C14 H36 N5



CM 4

CRN 14797-73-0
CMF Cl O4

RN 148275-83-6 CAPLUS
CN 1-Butanaminium, 4-amino-N,N,N-tris(4-aminobutyl)-, perchlorate, tetraperchlorate (9CI) (CA INDEX NAME)

CM 1

CRN 7601-90-3
CMF Cl H O4

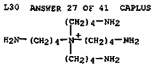
CM 2

CRN 148275-82-5
CMF C16 H40 N5 . Cl O4

CM 3

CRN 148275-81-4
CMF C16 H40 N5

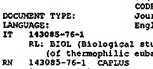
L30 ANSWER 27 OF 41 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)



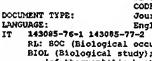
CM 4

CRN 14797-73-0
CMF Cl O4

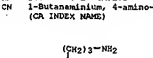
L30 ANSWER 28 OF 41 CAPLUS COPYRIGHT 2003 ACS on STN
AB Polyamines of thermophilic gram-neg. eubacteria, Rhodothermus marinus ATCC
43812, Thermus sp. ATCC 43814, and Thermonema lapsum ATCC 43542 were analyzed by HPLC and gas chromatog.-mass spectrometry. R. marinus contained spermidine, spermine, thermopentamine, a tertiary tetrasamine (N4-aminopropylspermidine), and a quaternary pentasamine (N4-bis(aminopropyl)spermidine). Thermus sp. ATCC 43814 contained putrescine, cadaverine, norspermidine, spermidine, homospermidine, norspermine, spermine, thermospermine, aminopropylhomospermidine, caldopentamine, agmatine, 2 tertiary tetraamines (N4-aminopropylnorspermidine and N4-aminopropylspermidine), and 2 quaternary pentaamines (N4-bis(aminopropyl)norspermidine and N4-bis(aminopropyl)spermidine). Homospermidine and homospermine were detected in T. lapsum as the major polyamine. These distribution patterns
of long and branched polyamines are distinctive in the thermophiles, indicating that unusual polyamine profiles serve to est. chemotaxonomic and phylogenetic relations within thermophilic eubacteria.
ACCESSION NUMBER: 1993:251160 CAPLUS
DOCUMENT NUMBER: 118:251160
TITLE: Distribution of unusual long and branched polyamines in thermophilic eubacteria belonging to "Rhodothermus," Thermus and Thermonema
AUTHOR(S): Hamana, Koei; Hamana, Hiroshi; Niitsu, Masaru; Samejima, Keijiro; Matsuzaki, Sigeru
CORPORATE SOURCE: Coll. Med. Care Technol., Gunma Univ., Maebashi, 371, Japan
SOURCE: Journal of General and Applied Microbiology (1992), 38(6), 575-84
CODEN: JGAMA9; ISSN: 0022-1260
DOCUMENT TYPE: Journal
LANGUAGE: English
IT 143085-76-1
RL: BIOL (Biological study)
(of thermophilic eubacteria)
RN 143085-76-1 CAPLUS
CN 1-Butanaminium, 4-amino-N,N,N-tris(3-aminopropyl)- (9CI) (CA INDEX NAME)



L30 ANSWER 29 OF 41 CAPLUS COPYRIGHT 2003 ACS on STN
AB Novel tertiary branched tetreamines, quaternary branched pentasamines, linear pentasamines, and linear hexaamines were distributed as the major polyamines in 6 obligately extremely thermophilic eubacteria belonging to Thermoleophilum, Bacillus, or Hydrogenobacter. The major polyamine of T. album and T. minutum was identified as a quaternary branched pentaamine, 4,4-bis(3-aminopropyl)-1,8-diamino-4-azaoctane (NH2[CH2]3N+([CH2]4NH2)2[CH2]4NH2) by HPLC, TLC, and gas chromatog.-mass spectrometry. H. thermophilus and H. halophilus contained another quaternary branched pentasamine, 4,4-bis(3-aminopropyl)-1,7-diamino-4-azaheptane as the major polyamine, and tertiary branched tetraamines (4-(3-aminopropyl)-1,7-diamino-4-azaheptane, 4-(3-aminopropyl)-1,8-diamino-
4-azaoctane, and 4,4-bis(3-aminopropyl)-1,8-diamino-4-azaoctane were confirmed as minor components. B. schlegelii contained a branched tetrasamine, 4-(3-aminopropyl)-1,8-diamino-4-azaoctane, a branched pentasamine, 4,4-bis(3-aminopropyl)-1,8-diamino-4-azaoctane, a linear pentasamine, 1,16-diamino-4,8,13-triazahexadecane and linear hexaamine(s), 1,20-diamino-4,8,12,17-tetraazaeicosane and/or 1,20-diamino-4,8,13,17-tetraazaeicosane.
ACCESSION NUMBER: 1992:567247 CAPLUS
DOCUMENT NUMBER: 117:167247
TITLE: Novel linear and branched polyamines in the extremely thermophilic eubacteria Thermoleophilum, Bacillus and Hydrogenobacter
AUTHOR(S): Hamana, Koei; Niitsu, Masaru; Matsuzaki, Shigeru; Samejima, Keijiro; Igarashi, Yasuo; Kodama, Tohru
CORPORATE SOURCE: Coll. Med. Care Technol., Gunma Univ., Maebashi, 371, Japan
SOURCE: Biochemical Journal (1992), 284(3), 741-7
CODEN: BIJOAK; ISSN: 0306-3275
DOCUMENT TYPE: Journal
LANGUAGE: English
IT 143085-76-1 143085-77-2
RL: BOC (Biological occurrence); RSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)
(of thermophilic bacteria)
RN 143085-76-1 CAPLUS
CN 1-Butanaminium, 4-amino-N,N,N-tris(3-aminopropyl)- (9CI) (CA INDEX NAME)



RN 143085-77-2 CAPLUS
CN 1-Butanaminium, 4-amino-N-(4-aminobutyl)-N,N-bis(3-aminopropyl)- (9CI) (CA INDEX NAME)



L30 ANSWER 29 OF 41 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)

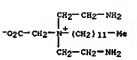
L30 ANSWER 30 OF 41 CAPLUS COPYRIGHT 2003 ACS on STN

AB P. aeruginosa grew in high concns. of an amphoteric and a quaternary ammonium compd. following repeated subculturing in increasing concns. of the biocides. Resistance was acquired and lost gradually. Adaptation to both biocides resulted in cross resistance to biguanides, but whereas quaternary adapted cells were resistant to a range of quaternary ammonium compds., the amphoteric adapted organisms were not. Amphoteric-adapted cells had increased hydrophobicity and exhibited ultrastructural modifications which suggested that the outer membrane might be involved in resistance. Both amphoteric and quaternary ammonium adapted organisms showed changes in their fatty acid profiles consistent with outer membrane modification but the changes were different in each case. The mechanisms involved in biocide resistance are discussed.

ACCESSION NUMBER: 1989:474651 CAPLUS
DOCUMENT NUMBER: 111:74651
TITLE: Resistance of Pseudomonas aeruginosa to amphoteric and quaternary ammonium biocides
AUTHOR(S): Jones, M. V.; Herd, T. M.; Christie, H. J.
CORPORATE SOURCE: Unilever Res., Sharnbrook/Bedford, MK44 1LQ, UK
SOURCE: Microbios (1989), 58(234), 49-61
CODEN: MCBIA7; ISSN: 0026-2633
DOCUMENT TYPE: Journal
LANGUAGE: English

IT 89807-33-0, Amphobac 4
RL: BIOL (Biological study)
(Pseudomonas aeruginosa resistance to)

RN 89807-33-0 CAPLUS
CN 1-Dodecanaminium, N,N-bis(2-aminoethyl)-N-(carboxymethyl)-, inner salt (9CI) (CA INDEX NAME)



L30 ANSWER 31 OF 41 CAPLUS COPYRIGHT 2003 ACS on STN

AB Microorganism-contaminated reverse-osmosis membranes for sepn. of deoxygenated liqs. (dissolved O <2 ppm) are sterilized with 0.0001-0.1 wt.% aq. quaternary ammonium salts. Thus, 1.0 .times. 10-3 wt.% aq. benzalkonium chloride was added to aq. H2S-forming microorganisms generated on a membrane filter. In 30 min after the addn. of the sterilization agent, the microorganism concn. decreased from 1.1 .times. 106 to <2.0 .times. 102 organisms/mL.

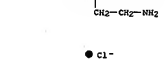
ACCESSION NUMBER: 1987:492121 CAPLUS
DOCUMENT NUMBER: 107:99121
TITLE: Sterilization of reverse-osmosis membranes
INVENTOR(S): Nakagawa, Yuki; Koniahi, Kenichi; Edogawa, Katsuya
PATENT ASSIGNEE(S): Toray Industries, Inc., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 62110705	A2	19870521	JP 1985-248925	19851108

PRIORITY APPLN. INFO.: JP 1985-248925 19851108

IT 76721-98-7
RL: USES (Uses)
(sterilization agents, for hydrogen sulfide-forming microorganisms)

RN 76721-98-7 CAPLUS
CN 1-Dodecanaminium, N,N-bis(2-aminoethyl)-N-(carboxymethyl)-, chloride (9CI)
(CA INDEX NAME)



● Cl⁻

L30 ANSWER 32 OF 41 CAPLUS COPYRIGHT 2003 ACS on STN

AB H2SiF6 and/or its water-sol. salts are used to stabilize and/or enhance microbiocidal effects of H2O2. The compn. comprises H2O2 1-15, H2SiF6 and/or its salts 0.1-20, a complexing agent 0.1-5, a bactericidal quaternary ammonium compd. 0.5-10, and/or other bactericidal agents, phosphoric acid and/or salts 0-20, and a surfactant 0-20% by wt. in a water-mixable solvent system. Thus, a compn. was formulated contg. H2O2 5, 1-hydroxyethyl-1,1-diphosphonic acid 0.6, MgSiF6 15, alkylbenzyldimethylammonium chloride 7.5, and water 71.9% by wt. The content of H2O2 was 92% after a 12-wk storage at 40.degree..

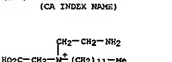
ACCESSION NUMBER: 1986:558909 CAPLUS
DOCUMENT NUMBER: 105:158909
TITLE: Stabilized disinfecting agent concentrates
INVENTOR(S): Schindler, Norbert; Disch, Karlheins; Bansemir, Klaus
PATENT ASSIGNEE(S): Henkel K.-G.a.A., Fed. Rep. Ger.
SOURCE: Ger. Offen., 15 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3444055	A1	19860619	DE 1984-3444055	19841203
EP 186781	A1	19860709	EP 1985-114927	19851125
R: AT, BE, CH, DE, FR, GB, IT, LI, NL				
DK 8505483	A	19860604	DK 1985-5483	19851127
JP 61134303	A2	19860621	JP 1985-273179	19851203
ES 549516	A1	19870416	ES 1985-549516	19851203

PRIORITY APPLN. INFO.: DE 1984-3444055 19841203

IT 76721-98-7
RL: BIOL (Biological study)
(disinfectant contg. hydrogen peroxide and hexafluorosilicate and)

RN 76721-98-7 CAPLUS
CN 1-Dodecanaminium, N,N-bis(2-aminoethyl)-N-(carboxymethyl)-, chloride (9CI)
(CA INDEX NAME)



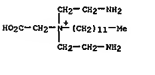
● Cl⁻

L30 ANSWER 33 OF 41 CAPLUS COPYRIGHT 2003 ACS on STN
AB Cleansing solns. for the anus of patients with hemorrhoids contain one or more sol. bactericides and surfactants. The solns. may be applied to toilet papers prior to cleaning. Thus, a cleansing soln. contains cetyltrimethylammonium bromide (a bactericide) 0.01, dodecyldiaminoethylglycine.HCl 0.05, polyoxyethylene cetyl ether 1.0, and H2O 98.94% by wt.

ACCESSION NUMBER: 1986:466266 CAPLUS
DOCUMENT NUMBER: 105:66266
TITLE: Anal cleansing solutions for patients with hemorrhoids
INVENTOR(S): Fujita, Ryuzo; Hasegawa, Kenji; Kamiya, Iwao
PATENT ASSIGNEE(S): Yamato Chemical Industry Co., Ltd., Osaka, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 3 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 61085311	A2	19860430	JP 1984-205643	19841002
PRIORITY APPLN. INFO.:			JP 1984-205643	19841002

IT 76721-98-7
RL: BIOL (Biological study)
(anal cleansing soln. contg.)
RN 76721-98-7 CAPLUS
CN 1-Dodecanaminium, N,N-bis(2-aminoethyl)-N-(carboxymethyl)-, chloride (9CI)
(CA INDEX NAME)



● Cl-

L30 ANSWER 34 OF 41 CAPLUS COPYRIGHT 2003 ACS on STN
AB The agents suitable for breaking all cation active asphalt emulsions contain 30-99% H2O and/or C1-3 alcs. and the polyamine Me sulfates [RNHMeCH2CH2CH2NH2Me].(MeSO4)2 (I) [91038-06-1], [RNHMeCH2CH2CH2NHMeCH2CH2CH2NH2Me].(MeSO4)3 [91038-08-3], [(MeNH2CH2CH2CH2CH2)2NMeR].(MeSO4)3 [91038-11-0], [MeNH2CH2CH2CH2NMeCH2CH2CH2NHMeCH2CH2CH2NH2Me]2].(MeSO4)4 [91038-14-1], [RNHMeCH2CH2CH2NMe(CH2CH2CH2NH2Me)2].(MeSO4)4 [91108-18-8], or [MeNH2CH2CH2CH2NMeCH2CH2CH2NMe(CH2CH2CH2NH2Me)2].(MeSO4)5 [91038-17-4], where R = n-C18H37. The agents are used in construction, repair, and maintenance of roads and airport runways. Thus, 100 g aggregates (grain size .ltoreq.5 mm), contg. 60% basalt and 40% quartz sand, was wetted with 15 mL water contg. 0.2 g agent from 30% I and 70% water, 18 mL 60% asphalt emulsion prepd. by using 0.4% octadecyltripropylenetetramine as an emulsifier, was added, and the emulsion was broken within 60 s.

ACCESSION NUMBER: 1984:459247 CAPLUS
DOCUMENT NUMBER: 101:59247
TITLE: Agent for controlling time of breaking of cation-active asphalt emulsions
INVENTOR(S): Volf, Jiri; Pasek, Josef; Repkova, Mariana; Machytka, Vladimir; Ruzicka, Jaroslav; Vacek, Antonin
PATENT ASSIGNEE(S): Czech.
SOURCE: Czech., 4 pp.
CODEN: CZXXA9
DOCUMENT TYPE: Patent
LANGUAGE: Czech
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CS 207439	B	19810731	CS 1979-4824	19790710
PRIORITY APPLN. INFO.:			CS 1979-4824	19790710

IT 91038-11-8
RL: USES (Uses)
(emulsion breaking agents, for paving asphalt)
RN 91038-11-8 CAPLUS
CN 1-Octadecanaminium, N-methyl-N,N-bis[3-(methylamino)propyl]-, methyl sulfate, bis(methyl sulfate) (9CI) (CA INDEX NAME)

CM 1

CRN 75-93-4
CMF C H4 O4 S

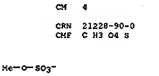
CM 2

CRN 91038-10-7
CMF C27 H60 N3 . C H3 O4 S

L30 ANSWER 34 OF 41 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)

CM 3

CRN 91038-09-4
CMF C27 H60 N3



CM 4

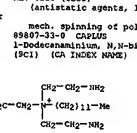
CRN 21228-90-0
CMF C H3 O4 S

L30 ANSWER 35 OF 41 CAPLUS COPYRIGHT 2003 ACS on STN
AB Polyester fibers finished with lubricant compns. contg. a C10-16 alkyl phosphate ester K or Na salt and a betaine compd. R81ZN+CH2CO2- (where R is C8-18 alkyl, R1 is Me, Et, cyanoethyl, or hydroxyethyl) as antistatic agents and a poly(oxyethylene) compd. are useful for mech. spinning of yarns. Thus, poly(ethylene terephthalate) staple fibers were finished with a compn. contg. K decyl phosphate (68427-32-7) 40, dimethyllauryl betaine [683-10-3] 30, and polyethylene glycol dilaurate [9005-02-1] 30% to finish content 0.15% and heat-treated at 120.degree.. Scum formation and elec. charge generation did not occur on mech. spinning the finished fibers.

ACCESSION NUMBER: 1984:176408 CAPLUS
DOCUMENT NUMBER: 100:176408
TITLE: Finishes for mechanical spinning of polyester fibers
PATENT ASSIGNEE(S): Teijin Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 58180685	A2	19831022	JP 1982-62539	19820416
PRIORITY APPLN. INFO.:			JP 1982-62539	19820416

IT 89807-33-0
RL: USES (Uses)
(antistatic agents, lubricant finishes contg. phosphate esters and, for mech. spinning of polyester yarns)
RN 89807-33-0 CAPLUS
CN 1-Dodecanaminium, N,N-bis(2-aminoethyl)-N-(carboxymethyl)-, inner salt (9CI) (CA INDEX NAME)

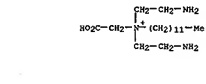


L30 ANSWER 36 OF 41 CAPLUS COPYRIGHT 2003 ACS on STN
AB K ascorbate (I) [15421-15-5], polyhydric alcs., amino alcs., surfactants, etc. inhibit the embrittlement of polyamides in water. Thus, nylon 6 [25038-54-4] film immersed 50 days in aq. 0.05% I at 80 .+-. 1.degree. had elongation at break 330% , compared with 0% after 3 days in tap water.

ACCESSION NUMBER: 1984:122210 CAPLUS
DOCUMENT NUMBER: 100:122210
TITLE: Inhibiting the embrittlement of polyamides
PATENT ASSIGNEE(S): Otsuka Chemical Co., Ltd., Japan; Unitika Ltd.
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

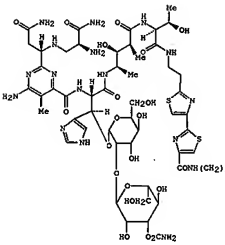
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 58157857	A2	19830920	JP 1982-41871	19820316
JP 02033054	B4	19900725		
PRIORITY APPLN. INFO.:			JP 1982-41871	19820316

IT 76721-98-7
RL: USES (Uses)
(surfactants, embrittlement inhibitors, for polyamides)
RN 76721-98-7 CAPLUS
CN 1-Dodecanaminium, N,N-bis(2-aminoethyl)-N-(carboxymethyl)-, chloride (9CI)
(CA INDEX NAME)



● Cl⁻

L30 ANSWER 37 OF 41 CAPLUS COPYRIGHT 2003 ACS on STN
GI



I

AB Bleomycins I (X = amino, piperazino, aminoalkylamino; NRR1 = amino) (53 compds.) and their Cu chelates were prepd. Thus, I (X = NMe, R = R1 = H) was reductively alkylated with cycloundecanecarboxaldehyde to give I Cu chelate (X = NMe, R = cycloundecylmethyl, R1 = H) which was converted to its Cu-free form (II). II caused 50% inhibition of He-La cell growth at 0.58 .mu.g/mL and caused no pulmonary fibrosis in mice at 10 times. 5 mg/kg.

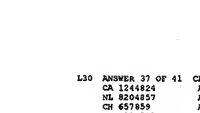
ACCESSION NUMBER: 1984:23013 CAPLUS
DOCUMENT NUMBER: 100:23013
TITLE: Aminopropylaminobleomycin derivatives
INVENTOR(S): Umezawa, Hamao; Fujii, Akio; Muzooka, Yasuhiko; Nakatani, Tokuji; Fukuoka, Takeyo; Takahashi, Katsutoshi
PATENT ASSIGNEE(S): Microbiochemical Research Foundation, Japan
SOURCE: Ger. Offen., 76 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3247199	A1	19830707	DE 1982-3247199	19821221
JP 58116497	A2	19830711	JP 1981-210449	19811229
JP 63006078	B4	19880208		

L30 ANSWER 37 OF 41 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)

CA 1244824	A1	19881115	CA 1982-417791	19821215
NL 8204857	A	19830718	NL 1982-4857	19821216
CH 657859	A	19860930	CH 1982-7478	19821222
GB 2112781	A1	19830727	GB 1982-36626	19821223
GB 2112781	B2	19851218		
SE 8207408	A	19830630	SE 1982-7408	19821227
SE 465034	B	19910715		
SE 465034	C	19911107		
ES 518580	A1	19840201	ES 1982-518580	19821227
AT 8204693	A	19850815	AT 1982-4693	19821227
AT 380021	B	19860325		
DK 8205764	A	19830630	DK 1982-5764	19821228
HU 27462	O	19831028	HU 1982-4179	19821228
HU 187856	B	19860228		
CS 237334	B2	19850716	CS 1982-9910	19821228
IL 67581	A1	19860331	IL 1982-67581	19821228
FR 2519638	A1	19830718	FR 1982-22035	19821229
FR 2519638	B1	19851129		
US 4537880	A	19850827	US 1984-635096	19840727
US 4568490	A	19860204	US 1985-743738	19850612
PRIORITY APPLN. INFO.:			JP 1981-210449	19811229
			US 1982-453254	19821227
			US 1984-635096	19840727

IT 89015-57-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and reaction of, with bleomycin acid)
RN 89015-57-0 CAPLUS
CN 1-Butanaminium, N,N-bis(3-aminopropyl)-N-butyl-, chloride, dihydrochloride (9CI) (CA INDEX NAME)



● Cl⁻

●2 HCl

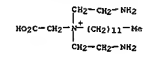
L30 ANSWER 38 OF 41 CAPLUS COPYRIGHT 2003 ACS on STN
AB A pretreatment process for rapid tanning comprised pickling hides after beamhouse treatment in the presence of urotropine (I) (100-97-0) and at least 1 tanning improver, e.g. Al or Cr salts, phenolic compds., org. compds. contg. N and S or halogen atoms, org. carboxylic acids, organotin compds., Cu compds., and As compds. Thus, 100 parts washed, bated hides were drummed 10 min with 20 parts H2O and 6 parts NaCl. A soln. of 2 parts H2SO4 in 20 parts H2O was added and drummed 25 min, and 2 parts I was added and drummed 1 h. Beachrome S (powd. chrome tanning material) (0.3 parts) was added and drummed 11 h, and 3 parts Beachrome was added and drummed 8 h. The tanned leather was aged 2 days at room temp. The total time required for pickling and tanning was 20 h. The pH at the end of tanning was 3.7. The residual Cr2O3 in the spent tanning liquor was 0.1 g/100 mL, and the shrinkage temp. of the leather was 110.degree..

ACCESSION NUMBER: 1981:123130 CAPLUS
DOCUMENT NUMBER: 94:123130
TITLE: Tanning process and compositions
INVENTOR(S): Hayashi, Sabuto; Okada, Syohiti; Okamoto, Kazuyoshi; Mizutani, Mochifumi; Isono, Teizo; Osada, Toshio; Okabe, Toru; Adachi, Mitsuji
PATENT ASSIGNEE(S): Seitetsu Kagaku Co., Ltd., Japan
SOURCE: Eur. Pat. Appl., 40 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 19435	A2	19801126	EP 1980-301529	19800509
EP 19435	A3	19810121		
EP 19435	B1	19840321		
R: DE, FR, GB, NL				
JP 55149400	A2	19801120	JP 1979-58488	19790511
JP 56147900	A2	19811117	JP 1980-51323	19800417
JP 60019960	B4	19850518		
US 4348201	A	19820907	US 1980-147663	19800507
AU 8058267	A1	19801113	AU 1980-58267	19800509
AU 532306	B2	19830922		
EP 64761	A1	19821117	EP 1982-104070	19800509
EP 64761	B1	19851113		
R: DE, FR, GB, NL				
CA 1164156	A1	19840327	CA 1980-351652	19800509
PRIORITY APPLN. INFO.:			JP 1979-58488	19790511
			JP 1980-51323	19800417
			EP 1980-301529	19800509

IT 76721-98-7
RL: USES (Uses)
(in pickling pretreatment for rapid chrome tanning)
RN 76721-98-7 CAPLUS
CN 1-Dodecanaminium, N,N-bis(2-aminoethyl)-N-(carboxymethyl)-, chloride (9CI)
(CA INDEX NAME)

L30 ANSWER 38 OF 41 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)



● Cl⁻

L30 ANSWER 39 OF 41 CAPLUS COPYRIGHT 2003 ACS on STN

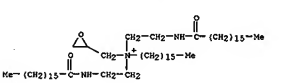
AB Uniformly fulled wool-cotton blends, with reduced fiber loss, were prepd. by mixing an inorg. salt with an aliph. amide amine salt, aliph. polyamide amine salt, or an imidazoline salt as cationic softening agent or a siloxane and milling the fabric impregnated with the mixt. above 35.degree.. Thus, 35:65 merino wool-Exlan K4 (acrylic) blend was immersed in an aq. mixt. contg. 0.5 g/L [C17H35CONHCH2CH2NHCH2CH2N+H2CH2CH2OH] Cl- [71067-16-8] and 0.1 g/L NaCl to 160% pickup and milled 30 min at 40 +-. 5.degree. to give a fulled fabric with area shrinkage 39.5% and low fiber loss, whereas fiber loss was high for the fabric impregnated with a similar compn. without NaCl.

ACCESSION NUMBER: 1979:508979 CAPLUS
DOCUMENT NUMBER: 91:108979
TITLE: Milling of acrylic-wool blends
INVENTOR(S): Masuda, Masataka
PATENT ASSIGNEE(S): Japan Exlan Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 54018992	A2	19790213	JP 1977-84489	19770713
JP 60039792	B4	19850907		
PRIORITY APPLN. INFO.:			JP 1977-84489	19770713

IT 71067-17-9
RL: USES (Uses)
(softening agents, for milling of acrylic-wool blends)

RN 71067-17-9 CAPLUS
CN Oxiranemethanaminium, N-hexadecyl-N,N-bis[2-[(1-oxoheptadecyl)amino]ethyl]-, chloride (9CI) (CA INDEX NAME)



● Cl⁻

L30 ANSWER 40 OF 41 CAPLUS COPYRIGHT 2003 ACS on STN

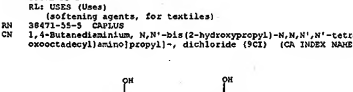
AB Stearic acid (I), behenic acid, or oleic acid is condensed with dipropylenetriamine (II) or diethylenetriamine, treated with propylene oxide (III), with acrylamide, or with HCHO and HCO2H, and then treated with Cl(CH2)4Cl, dichlorodiethyl ether, Br(CH2)10Br, or p-xylylene dichloride to prep. quaternary amines useful as softeners for cotton, polyamide, polyester, and other textiles and for paper. In 2 cases, the quaternary amines are treated with Na pentachlorophenolate or methylenebis(chlorophenol) to prep. antimicrobial softeners. Thus, 1620 parts I is condensed at 200.deg. with 393 parts II, treated (250 parts) with 30 parts III during 5 hr at 90.deg., and treated (70 parts) with 19 parts Cl(CH2)4Cl during 30 min at 150.deg. to prep. a softener for cotton textiles.

ACCESSION NUMBER: 1972:490405 CAPLUS
DOCUMENT NUMBER: 77:90405
TITLE: Polyamide ammonium compounds for finishing textiles
INVENTOR(S): Hochreuter, Richard
PATENT ASSIGNEE(S): Sandoz Ltd.
SOURCE: Ger. Offen., 32 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2150225	A	19720608	DE 1971-2150225	19711008
CH 553150	A	19740830	CH 1970-14902	19701009
US 3793352	A	19740219	US 1971-186507	19711004
AU 7134293	A1	19730412	AU 1971-34293	19711006
ES 395812	A1	19741016	ES 1971-395812	19711007
GB 1377216	A	19741211	GB 1971-46765	19711007
FR 2111168	A5	19720602	FR 1971-36303	19711008
IT 945769	A	19730510	IT 1971-70303	19711008
PRIORITY APPLN. INFO.:			CH 1970-14902	19701009

IT 38471-55-5 38471-57-7 38471-92-0 38471-95-3
RL: USES (Uses)
(softening agents, for textiles)

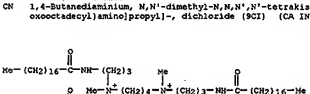
RN 38471-55-5 CAPLUS
CN 1,4-Butanediaminium, N,N'-bis(2-hydroxypropyl)-N,N,N',N'-tetrakis[3-[(1-oxooctadecyl)amino]propyl]-, dichloride (9CI) (CA INDEX NAME)



●2 Cl⁻

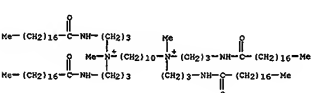
L30 ANSWER 40 OF 41 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)

RN 38471-57-7 CAPLUS
CN 1,4-Butanediaminium, N,N'-dimethyl-N,N,N',N'-tetrakis[3-[(1-oxooctadecyl)amino]propyl]-, dichloride (9CI) (CA INDEX NAME)



●2 Cl⁻

RN 38471-92-0 CAPLUS
CN 1,10-Decanediaminium, N,N'-dimethyl-N,N,N',N'-tetrakis[3-[(1-oxooctadecyl)amino]propyl]-, dibromide (9CI) (CA INDEX NAME)



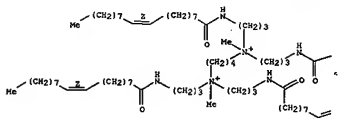
●2 Br⁻

RN 38471-95-3 CAPLUS
CN 1,4-Butanediaminium, N,N'-dimethyl-N,N,N',N'-tetrakis[3-[(1-oxo-9-octadecenyl)amino]propyl]-, dichloride, (all-Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

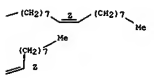
L30 ANSWER 40 OF 41 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)

PAGE 1-A



●2 Cl⁻

PAGE 1-B



L30 ANSWER 41 OF 41 CAPLUS COPYRIGHT 2003 ACS on STN

GI For diagram(s), see printed CA Issue.

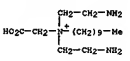
AB Twenty seven ampholytes RNH(CH2CH2NH)n(CH2)m-X.HCl, where R = hydrocarbon chain, X = COOH or SO3H, and n and m = whole nos., exerted a structure-dependent bactericidal action against Escherichia coli and Staphylococcus aureus. Bactericidal action increased with the no. of methylene groups only up to n = 4, and compds. with a primary amino group contg. a long chain hydrocarbon residue between the amino and carboxyl groups were low in effectiveness compared with those contg. a secondary amino group. Activity of ampholytes with a quaternary N atom attached to the dodecyl residue had bactericidal action level with that of tertiary compds. Introduction of 2 or more carboxyethyl residues decreased antimicrobial action more than a corresponding no. of alkyl residues. Ampholytes with an unbalanced structure (an excess of amino or carboxyl groups) were stronger antibacterial agents than those of balanced structure. Introduction of aromatic nucleus residues decreased bactericidal action, probably by decreasing water soly. N-Dodecyl-.beta.-aminovaleric acid-HCl (I), dodecyltris(carboxyethyl)ammonium chloride (II), dodecyl-(hydroxyethyl)aspartic acid, and N-dodecyl-.beta.-alanine (III) were the most active antibacterial agents. Dodecyl(carboxyethyl)amine was synthesized from dodecylamine and excess acrylic acid. Aspartic acid derivs. were synthesized by boiling of the corresponding amine with maleic acid in acetone. Dodecyldiethyl(carboxyethyl)ammonium chloride, dodecylethyl-.beta.-alanine HCl, and dodecyl(hydroxyethyl)glycins were obtained by boiling the corresponding amines with chlorocarboxylic acids in C6H6. II was similarly synthesized from dodecylbis(carboxyethyl)amine and .beta.-chloropropionic acid. Dodecylhydantoic acid-HCl was synthesized by boiling of dodecylurea with monochloroacetic acid in C6H6. N-Dodecylaminoethylsulfanilic acid was obtained by heating dodecylethanolamine with sulfanilic acid. Other alkyl amino acids contg. aromatic residues in the acid portion were obtained by reaction of dodecyl chloride with aromatic amino acids in the presence of ampholytes in the hydroxyl form.

ACCESSION NUMBER: 1971:100387 CAPLUS
DOCUMENT NUMBER: 74:100387
TITLE: Synthesis and antibacterial properties of ampholytic preparations based on dodecylamine
AUTHOR(S): Limanov, V. E.; Sobol, A. F.; Vorontsova, L. M.
CORPORATE SOURCE: Tsent. Nauchno-Issled. Desinfekts. Inst., Moscow, USSR
SOURCE: Khimiko-Farmatsevticheskii Zhurnal (1971), 5(1), 9-13
CODEN: KHFZAN; ISSN: 0023-1134
DOCUMENT TYPE: Journal
LANGUAGE: Russian

IT 31268-43-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 31268-43-6 CAPLUS
CN Ammonium, bis(2-aminoethyl)(carboxymethyl)decyl-, chloride (8CI) (CA INDEX NAME)

L30 ANSWER 41 OF 41 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)



● Cl⁻

=> fil reg

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	190.98	1517.73

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-26.69	-87.23

FILE 'REGISTRY' ENTERED AT 15:08:30 ON 24 DEC 2003
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 23 DEC 2003 HIGHEST RN 630084-36-5
DICTIONARY FILE UPDATES: 23 DEC 2003 HIGHEST RN 630084-36-5

TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2003

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:

SEARCH TIME: 00.00.01

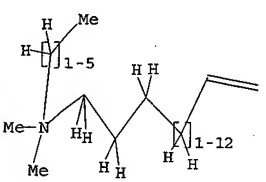
FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 59245 TO 65955
PROJECTED ANSWERS: 16525 TO 20157

L32 50 SEA SSS SAM L31

=>
Uploading 10005294.str

L33 STRUCTURE UPLOADED

=> d query
L33 STR



Structure attributes must be viewed using STN Express query preparation.

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-87.23

FILE 'CAPLUS' ENTERED AT 15:14:57 ON 24 DEC 2003
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

FILE COVERS 1907 - 24 Dec 2003 VOL 139 ISS 26
FILE LAST UPDATED: 23 Dec 2003 (20031223/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s l35
L36 17 L35

L36 ANSWER 1 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN
AB The softener compn. comprises (A) specified quaternary ammonium type cationic surfactants and (B) polyhydric alc. type nonionic surfactants.
A
compn. contained ethyldimethyloleylammonium ethylsulfate 12, sorbitan monooleate 3, ethylene oxide-propylene oxide block copolymer mono-tridecyl
ether 2, propylene glycol 6, Na sulfate 1, and water 76 parts.

ACCESSION NUMBER: 2003:592849 CAPLUS
DOCUMENT NUMBER: 139:135241
TITLE: Fabric softener composition with good storability and water dispersibility
INVENTOR(S): Kawasaki, Yumi; Kawaguchi, Koji
PATENT ASSIGNEE(S): Sanyo Chemical Industries, Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003213568	A2	20030730	JP 2002-12233	20020121

PRIORITY APPLN. INFO.: JP 2002-12233 20020121
OTHER SOURCE(S): MARPAT 139:135241
IT 10380-16-2P, Ethyldimethyloleylammonium ethylsulfate
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(fabric softener compn. with good storability and water dispersibility)
RN 10380-16-2 CAPLUS
CN 9-Octadecen-1-aminium, N-ethyl-N,N-dimethyl-, (9Z)-, ethyl sulfate (9CI) (CA INDEX NAME)

CM 1

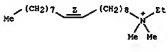
CRN 48028-76-8
CMF C2 H5 O4 S

Et-O-SO3-

CM 2

CRN 45273-66-3
CMF C22 H46 N

Double bond geometry as shown.



L36 ANSWER 2 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN
AB Styrene-based thermoplastic elastomers dissolved in org. solvents are emulsified by use of quaternary alkylammonium salts and/or alkylamine salts contg. .gtoreq.1 C6-24 alkyl groups to give cationic elastomer latexes. Thus, Kraton D 1101 (SBS) was dissolved in PhMe, mixed with dodecylethyldimethylammonium Et sulfate, stirred, and freed of PhMe to give a latex showing wt.-av. particle size 0.7 .mu.m and good storage stability.

ACCESSION NUMBER: 2000:526767 CAPLUS
DOCUMENT NUMBER: 133:121520
TITLE: Manufacture of styrene-based thermoplastic elastomer latexes with small particle size and excellent storage
stability
INVENTOR(S): Araki, Eiichi; Sugihara, Norihiro; Utsumi, Masato; Matsukawa, Taiji
PATENT ASSIGNEE(S): Sumitomo Seika K. K., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000212287	A2	20000802	JP 1999-12228	19990120

PRIORITY APPLN. INFO.: JP 1999-12228 19990120
IT 10380-16-2, Oleyldimethylethylammonium ethyl sulfate
RL: MOA (Modifier or additive use); USES (Uses)
(emulsifier; manuf. of thermoplastic styrene elastomer latexes with small particle size and good storage stability)
RN 10380-16-2 CAPLUS
CN 9-Octadecen-1-aminium, N-ethyl-N,N-dimethyl-, (9Z)-, ethyl sulfate (9CI) (CA INDEX NAME)

CM 1

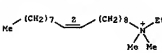
CRN 48028-76-8
CMF C2 H5 O4 S

Et-O-SO3-

CM 2

CRN 45273-66-3
CMF C22 H46 N

Double bond geometry as shown.



L36 ANSWER 3 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN
AB The process comprises the step of forming a charge prevention layer made from a quaternary ammonium salt which has a C10-30 hydrocarbon group on a substrate. The optical recording medium has an uniform charge prevention layer and shows little stain over the time under the high temp. and high humidity to provide the excellent reading-out characteristics.

ACCESSION NUMBER: 1998:579921 CAPLUS
DOCUMENT NUMBER: 129:237730
TITLE: Process for manufacture of optical recording medium
INVENTOR(S): Kondo, Hirofumi; Tanaka, Tomiji; Shimata, Junko; Takeuchi, Atsushi
PATENT ASSIGNEE(S): Sony Corp., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10233039	A2	19980902	JP 1997-35268	19970219

PRIORITY APPLN. INFO.: JP 1997-35268 19970219
IT 10380-16-2
RL: TEM (Technical or engineered material use); USES (Uses)
(process for manuf. of optical recording medium)
RN 10380-16-2 CAPLUS
CN 9-Octadecen-1-aminium, N-ethyl-N,N-dimethyl-, (9Z)-, ethyl sulfate (9CI) (CA INDEX NAME)

CM 1

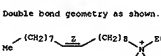
CRN 48028-76-8
CMF C2 H5 O4 S

Et-O-SO3-

CM 2

CRN 45273-66-3
CMF C22 H46 N

Double bond geometry as shown.



L36 ANSWER 4 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN
AB The title compds. R1R2R3R4N+ A- (I) (R1 = C1-22 alkyl, alkenyl, etc.; R2-R4 = R1, PhCH2; A- = R5R6R7NCO2-; R5 = C1-22 alkyl, alkenyl; R6, R7 = C1-22 alkyl, alkenyl, PhCH2, etc.; Z = C1-4 alkylene), useful as herbicides, plant growth regulators (no data), preservatives, etc., were prepd. Reaction of oleylmethylbis(hydroxyethyl)ammonium chloride with K oleyldimethylaminoacetate gave (C18H35)Me(HOCH2CH2)2N+ (C18H35).Me2NCH2CO2-.

ACCESSION NUMBER: 1989:632072 CAPLUS
DOCUMENT NUMBER: 111:232072
TITLE: Preparation of quaternary ammonium salts as agrochemicals and cosmetic materials
INVENTOR(S): Yanai, Akira; Sasagawa, Toshihiro
PATENT ASSIGNEE(S): Daiichi Kogyo Seiyaku Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

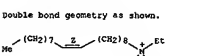
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 01106848	A2	19890424	JP 1987-263389	19871019

PRIORITY APPLN. INFO.: JP 1987-263389 19871019
OTHER SOURCE(S): MARPAT 111:232072
IT 123875-63-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 123875-63-8 CAPLUS
CN 9-Octadecen-1-aminium, N-(2-carboxyethyl)-N,N-dimethyl-, inner salt, (Z)-,
compd. with (Z)-N-ethyl-N,N-dimethyl-9-octadecen-1-aminium (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 123875-62-7
CMF C23 H45 N O2

Double bond geometry as shown.



CM 2

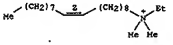
CRN 45273-66-3
CMF C22 H46 N

Double bond geometry as shown.

L36 ANSWER 4 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)

IT 14351-44-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with amino acid salt)
RN 14351-44-1 CAPLUS
CN 9-Octadecen-1-aminium, N-ethyl-N,N-dimethyl-, bromide, (Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

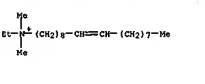


● Br⁻

L36 ANSWER 5 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN
AB The electroless coating baths are prepd. by adding a quaternary NH4 salt cationic surfactant to an aq. soln. contg. metal ions, hypophosphite reducing agent, complexing agent, pH buffer, and pH-adjusting agent. The baths produce Ni-P alloy coatings not easily magnetized by heat treatment and are useful for electroplating magnetic recording disks with a nonmagnetic Ni alloy as an intermediate layer. Thus, an Al alloy substrate was electroplated with Ni-P alloy in a bath at pH 4.8, 90.degree., and contg. NiSO4, NaPH2O2, (NH4)2SO4, Na malate, Na succinate,
and Arquad C-50 (main constituent alkyltrimethylammonium chloride). A Ni-P alloy coating obtained in a bath contg. Arquad C-50 0.60 g/L was deposited at 12.0 .mu./h and had a satn. magnetization after heat treatment of 33 G vs. 12.5 .mu./h and 326 G for a Ni-P coating obtained from the bath not contg. Arquad C-50.
ACCESSION NUMBER: 1985:99543 CAPLUS
DOCUMENT NUMBER: 102:99543
TITLE: Nickel-phosphorus alloy electroless coating bath
PATENT ASSIGNEE(S): NEC Corp., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 59170254	A2	19840926	JP 1983-44739	19830317
JP 04029739	B4	19920519		
PRIORITY APPLN. INFO.:			JP 1983-44739	19830317

IT 6458-13-5
RL: USES (Uses)
(in nickel-phosphorus alloy electroless coating bath)
RN 6458-13-5 CAPLUS
CN 9-Octadecen-1-aminium, N-ethyl-N,N-dimethyl-, bromide (9CI) (CA INDEX NAME)



● Br⁻

L36 ANSWER 6 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN
AB Polyester fibers finished with compns. contg. K and (or) Na salts of a C10-16 alkyl phosphate ester, a cationic surfactant R(Z)NN+R1X-, (R is C8-18 alkyl; R1 is Me, Et, or hydroxyethyl; Z is a divalent hydrocarbon group; X is OP(O)(OMe)2, OP(O)(OEt)2, MeSO4, EtSO4, or NO3; n = 0,1), and a poly(oxyethylene) are useful in the manuf. of spindle-spun yarns.
Thus,
poly(ethylene terephthalate) fibers were cut, finished with a 40:30:30 (wt. ratio) mixt. of K decyl phosphate [68427-32-7], (.beta.-hydroxyethyl)dimethyl[(stearamido)propyl]ammonium chloride [2646-11-9], and polyethylene glycol dilaurate [9005-02-1] to finish content 0.15%
and
heated at 120.degree.. Spinnability was good in carding and mech. spinning of the finished fibers.
ACCESSION NUMBER: 1984:553429 CAPLUS
DOCUMENT NUMBER: 101:153429
TITLE: Lubricant finishes for polyester fibers for spindle-spun yarns
PATENT ASSIGNEE(S): Teijin Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 59066575	A2	19840416	JP 1982-174445	19821006
PRIORITY APPLN. INFO.:			JP 1982-174445	19821006

IT 10380-16-2
RL: USES (Uses)
(finishes, contg. potassium alkyl phosphate and poly(oxyethylene) compds., for polyester staple fibers)
RN 10380-16-2 CAPLUS
CN 9-Octadecen-1-aminium, N-ethyl-N,N-dimethyl-, (9Z)-, ethyl sulfate (9CI) (CA INDEX NAME)

CM 1

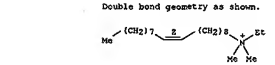
CRN 48028-76-8
CMF C2 H5 O4 S

Et—O—SO_3^-

CM 2

CRN 45273-66-3
CMF C22 H46 N

Double bond geometry as shown.



L36 ANSWER 6 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)

L36 ANSWER 7 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN
AB Polyester fibers are simultaneously dyed and finished by coating the spun fibers with mixts. contg. a finishing agent and a dye and then heat-treating the fibers at 90-220.degree.. These fibers have high bulk and good bulk recovery. Thus, poly(ethylene terephthalate) (I) with intrinsic viscosity (.eta.) PhON-C2H2Cl4 mixt.) 0.65 and I (.eta. 0.55) were melt spun together at 1:1 wt. ratio and drawn 200%. The drawn fibers were spray coated (0.25%) with 1% emulsion of a mixt. of K lauryl sulfate [4706-78-9] 60, polyethylene-polypropylene glycol [9003-11-6] 30, and Dianix Brown H-SE 10 parts and heat-treated 10 min at 150.degree. to give light-brown fibers. Bulk was good on carding the dyed fibers.
ACCESSION NUMBER: 1983:90970 CAPLUS
DOCUMENT NUMBER: 98:90970
TITLE: Dyeing of polyester fibers for stuffings
PATENT ASSIGNEE(S): Japan Exlan Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 3 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

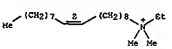
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 57154473	A2	19820924	JP 1981-38415	19810317
PRIORITY APPLN. INFO.:			JP 1981-38415	19810317

IT 84779-64-6
RL: MOA (Modifier or additive use); USES (Uses)
(antistatic agents, for polyester fibers)
RN 84779-64-6 CAPLUS
CN 9-Octadecen-1-aminium, N-ethyl-N,N-dimethyl-, (Z)-, nitrate (9CI) (CA INDEX NAME)

CM 1

CRN 45273-66-3
CMF C22 H46 N

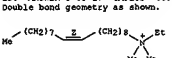
Double bond geometry as shown.



CM 2

CRN 14797-55-8
CMF N O3

L36 ANSWER 8 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)
Double bond geometry as shown.



L36 ANSWER 8 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN
AB Redn. in powdery fiber scum formation and yarn breakages and irregularities during spinning of acrylic and polyester staple fibers in open-ended spinning machines were achieved when the spinning oil contained a fatty acid ester 10-40, the condensation product of 2 mole of a fatty acid with 1 mole polyethylene polyamine 10-40, an antistatic agent 20, and emulsifying agent 10-60 wt. %. Thus, a drawn tower of 1.5 denier poly(ethylene terephthalate) monofilament fibers was immersed in an aq. emulsion contg. Bu stearate [123-95-5] 40, the product of a 2:1 molar ratio of palmitic acid with diethylenetriamine 10, oleyldimethylethylammonium ethosulfate [10380-16-2] 20, and poly(ethylene glycol) ester antistatic agent 30 wt. % and squeezed until the oil content was 0.15 wt. %. After processing into 200 grains/6 yd slivers the tow was spun on a BD-200 open-end spinning frame during 5 hr into a 20 count yarn. The no. of yarn breaks and no. of fibers wrapping around a combing roller were 14.4 and 2.6, resp., per frame per hr compared with 48.2 and 21.6, resp., per frame per hr when a ring spinning frame oil was used.
ACCESSION NUMBER: 1976:137157 CAPLUS
DOCUMENT NUMBER: 84:137157
TITLE: Spinning of synthetic staple fiber yarns
PATENT ASSIGNEE(S): Teijin, Ltd., Japan
SOURCE: Brit., 9 pp.
CODEN: BRXXAA
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 1415794	A	19751126	GB 1973-4170	19730126
JP 48077197	A2	19731017	JP 1972-10756	19720129
JP 52012838	B4	19770409		
US 3888775	A	19750610	US 1973-326452	19730124
CS 165318	P	19751222	CS 1973-685	19730129
PRIORITY APPLN. INFO.:			JP 1972-10756	19720129

IT 10380-16-2
RL: USES (Uses)
(spinning oil contg., for improved ringless spinning of staple fibers)
RN 10380-16-2 CAPLUS
CN 9-Octadecen-1-aminium, N-ethyl-N,N-dimethyl-, (9Z)-, ethyl sulfate (9CI) (CA INDEX NAME)

CM 1

CRN 48028-76-8
CMF C2 H5 O4 S

Et—O—SO3-

CM 2

CRN 45273-66-3
CMF C22 H46 N

L36 ANSWER 9 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN
AB The title oils, useful with open (ringless) spinning machines, contain 10-40% fatty acid ester, 10-40% fatty diamide of polyethylenepolyamine, 10-30% antistatic agent, and 10-70% emulsifier. Thus, spinning polyester fibers lubricated with 0.15% mixt. of butyl stearate (I) [123-95-5] 20, diethylenetriamine dipalmitamide (II) [42940-00-1] 30, ethyldimethyloleylammonium ethyl sulfate [10380-16-2] (antistatic agent) 20, and polyethylene glycol palmitate [9004-99-3] emulsifier 30 parts results in 2.8 breaks/hr and 0/hr wrapping of the yarn on the spindle, compared with 36.8 and 18.2, resp., in the absence of II, and 12.8 and 0, resp., in the absence of I.
ACCESSION NUMBER: 1974:28366 CAPLUS
DOCUMENT NUMBER: 80:28366
TITLE: Oil for use in spinning synthetic staple fibers
INVENTOR(S): Koizumi, Yukimichi; Kobayashi, Yoshihiro; Murase, Yasuhiro; Kondo, Takamitsu
PATENT ASSIGNEE(S): Teijin Ltd.
SOURCE: Ger. Offen., 18 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2304221	A1	19730816	DE 1973-2304221	19730129
DE 2304221	B2	19750507		
DE 2304221	C3	19760102		
JP 48077197	A2	19731017	JP 1972-10756	19720129
JP 52012838	B4	19770409		
US 3888775	A	19750610	US 1973-326452	19730124
CS 165318	P	19751222	CS 1973-685	19730129
PRIORITY APPLN. INFO.:			JP 1972-10756	19720129

IT 10380-16-2
RL: USES (Uses)
(antistatic agents, for textile spinning lubricants)
RN 10380-16-2 CAPLUS
CN 9-Octadecen-1-aminium, N-ethyl-N,N-dimethyl-, (9Z)-, ethyl sulfate (9CI) (CA INDEX NAME)

CM 1

CRN 48028-76-8
CMF C2 H5 O4 S

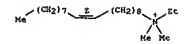
Et—O—SO3-

CM 2

CRN 45273-66-3
CMF C22 H46 N

Double bond geometry as shown.

L36 ANSWER 9 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)



L36 ANSWER 10 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN

AB Such compds. as cetyldimethylethylammonium, oleyldimethylethylammonium, and distearylmethylethylammonium ethosulfates, were detd. by titrating a mixt. of CHCl3, 0.0005M Na lauryl sulfate, bromophenol blue, and a H3PO4-NaOH buffer, with the compd. until the blue CHCl3 layer is blue.

ACCESSION NUMBER: 1964:55784 CAPLUS
DOCUMENT NUMBER: 60:55784
ORIGINAL REFERENCE NO.: 60:9835f
TITLE: Determination of quaternary ammonium compounds and similar biocides in alkaline solution
AUTHOR(S): Upperton, A. M.
CORPORATE SOURCE: Whitbread Co., Ltd., London
SOURCE: Chemistry & Industry (London, United Kingdom) (1964), (5), 192
CODEN: CHINAG; ISSN: 0009-3068
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
IT 3006-12-0, Ammonium, ethyldimethyl-9-octadecenyl, ethyl sulfate (detn. in alk. soln.)
RN 3006-12-0 CAPLUS
CN 9-Octadecen-1-aminium, N-ethyl-N,N-dimethyl-, ethyl sulfate (9CI) (CA INDEX NAME)

CM 1

CRN 48028-76-8
CMF C2 H5 O4 S

CM 2

CRN 45273-65-2
CMF C22 H46 N

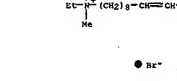
L36 ANSWER 11 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN

AB Protozoan infections may be treated with 97 parts of a mixt. of (3, 4-dichlorobenzyl)dimethyldodecylammonium chloride and dimethylethyl(9-octadecenyl)ammonium bromide in admixt. with 3 parts of the Na salt of carboxylated methylcellulose.

ACCESSION NUMBER: 1952:24672 CAPLUS
DOCUMENT NUMBER: 46:24672
ORIGINAL REFERENCE NO.: 46:4181d-e
TITLE: Carboxylated methylcellulose with quaternary ammonium compound as topical remedy
INVENTOR(S): Shelanski, Herman A.
PATENT ASSIGNEE(S): Onyx Oil & Chemical Co.
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2585048		19520212	US	

IT 6458-13-8, Ammonium, ethyldimethyl-9-octadecenyl-, bromide (topical remedy contg.)
RN 6458-13-8 CAPLUS
CN 9-Octadecen-1-aminium, N-ethyl-N,N-dimethyl-, bromide (9CI) (CA INDEX NAME)



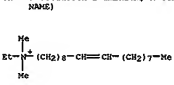
L36 ANSWER 12 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN

AB A compn. for use as an antiseptic detergent in the dairy industry or for dishwashing consists of a quaternary ammonium compd., a nonionic detergent, and compatible alkali salts. A particularly advantageous compn. is made as follows: 6.3 parts of nonaethylene glycol mono ester of soybean fatty acids is mixed with 3 parts of ethyldimethyloleylammonium bromide and the resulting liquid added slowly with thorough mixing to 45 parts of Na2CO3 and 45 parts of tetrasodium pyrophosphate (TSPP). A free-flowing powder results which, at a concn. of 1%, is capable of killing Escherichia coli in 1 min. of contact at room temp. Cf. C.A. 39, 3953.3.

ACCESSION NUMBER: 1951:10124 CAPLUS
DOCUMENT NUMBER: 45:10124
ORIGINAL REFERENCE NO.: 45:1794i,1795a
TITLE: Detergent sanitizer composition
INVENTOR(S): DuBois, Adrien Servule
PATENT ASSIGNEE(S): Onyx Oil & Chemical Co.
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2519747		19500827	US	

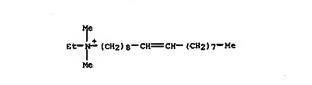
IT 6458-13-8, Ammonium, ethyldimethyl-9-octadecenyl-, bromide (in detergent compn.)
RN 6458-13-8 CAPLUS
CN 9-Octadecen-1-aminium, N-ethyl-N,N-dimethyl-, bromide (9CI) (CA INDEX NAME)



L36 ANSWER 13 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN

AB Tests were made on "Tamol N," the Na salt of a condensed aryl sulfonic acid, as an inactivator of 5 quaternary ammonium germicides, viz., diisobutylphenoxyethoxyethyldimethylbenzylammonium chloride, alkyldimethylbenzylammonium chloride, "N-(acylcolaminoformylmethyl) pyridinium chloride," hexadecylpyridinium chloride, and 9-octadecenyl-dimethylethylammonium chloride. At dilns. of 1 to 5000 and with 2 test organisms (Eberthella typhosa, Staphylococcus aureus), the quaternaries were completely inactivated by Tamol N at dilns. from 1 to 4000 up to 1 to 7000. Tamol N meets the standards of an inactivator, being pos. and fast in action, not bactericidal in concns. up to 2%, water-sol., able to withstand autoclaving, stable in soln., and possessing no detergent properties.

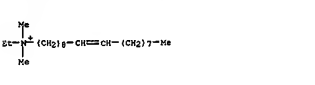
ACCESSION NUMBER: 1949:39244 CAPLUS
DOCUMENT NUMBER: 43:39244
ORIGINAL REFERENCE NO.: 43:7085f-h
TITLE: A quaternary inactivator
AUTHOR(S): Goetchius, G. R.
SOURCE: Soap and Sanitary Chemicals (1949), 25(No. 1), 131-5
CODEN: SSCHAM; ISSN: 0376-2610
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
IT 6458-13-5, Ammonium, ethyldimethyl-9-octadecenyl-, bromide
(inactivator for)
RN 6458-13-5 CAPLUS
CN 9-Octadecen-1-aminium, N-ethyl-N,N-dimethyl-, bromide (9CI) (CA INDEX NAME)



L36 ANSWER 14 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN

AB Special buffers were used from pH 2.0 to 9.0 to test the efficacy of 10 quaternary ammonium compns. at normal, high, and low temps. At 40.degree.F. and below the action of the compns. was materially reduced; at 120.degree.F. germicidal activity was materially increased. Flat sour spores were used as the test organism above 120.degree.F. and Escherichia coli below 120.degree.F. BTC, Quartol, and QB were most effective in the alk. range; Ceepryn, Emulsept, and Hyamine 1622 were most effective at acid levels; CTAB, Tetrosan, QCl, and Hyamine 10X were effective in either acid or alk. ranges. The compns. were least effective near neutrality.

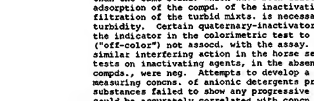
ACCESSION NUMBER: 1949:20228 CAPLUS
DOCUMENT NUMBER: 43:20228
ORIGINAL REFERENCE NO.: 43:3884g-i
TITLE: Effect of hydrogen-ion concentration and temperature on the activity of quaternary ammonium compounds
AUTHOR(S): Hucker, G. J.; Watkins, Shirley; Metcalf, Dorothea; Stone, Jean
SOURCE: N.Y. Agr. Expt. Sta., Tech. Bull. (1948), 281, 3-22
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
IT 6458-13-5, Ammonium, ethyldimethyl-9-octadecenyl-, bromide
(bactericidal action of)
RN 6458-13-5 CAPLUS
CN 9-Octadecen-1-aminium, N-ethyl-N,N-dimethyl-, bromide (9CI) (CA INDEX NAME)



L36 ANSWER 15 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN

AB In efforts to find a rapid and reasonably accurate method of testing the bactericidally active concns. of quaternary ammonium germicides (I) used as sanitizing agents encouraging results have been obtained by measurement of the turbidity produced by a combination of normal horse serum and I. By using a const. vol. of 1 drop of horse serum to each ml. of germicide comparable results were obtained with benzalkonium chloride (II) (U.S.P. XIII), (acylcolaminoformylmethyl)pyridinium chloride, (p-tert-octylphenoxyethoxyethyl)dimethylbenzylammonium chloride, hexadecylpyridinium chloride and 9-octadecenyldimethylethylammonium bromide. Turbidity readings were taken 15-30 sec. after addn. of the horse serum to the germicide soln. It was observed that a moderate turbidity indicated the presence of at least 250 p.p.m. of I. Addn. of 10% aq. safranine (prepd. from a satd. alc. soln.) to give a final concn. of 4% in the horse serum facilitated the turbidity readings. Chloroform serves as a preservative for the serum. Specificity of the test method in the presence of substances known completely or partially to neutralize the bactericidal action of I was carried out as follows: To an equal vol. of 1000 p.p.m. of II a neutralizing agent was added. If a ppt. resulted in this combination, the mixt. was clarified by filtration through paper. One drop of horse serum reagent was added to 1 ml. of the clear soln. and the presence or absence of turbidity noted. For purposes of comparision, the mixts. were also tested by the Dubois modification of the Hartley-Kunnicles colorimetric procedure (Dubois and Dibbee, J. Milk Technol. 9, 260(1946)). The data reveal that the colorimetric method on the unfiltered, turbid mixts. gives values which are consistently higher than the same solns. which have been filtered. It is evidence of adsorption of the compd. of the inactivating agent. In all instances filtration of the turbid mixts. is necessary before measuring the turbidity. Certain quaternary-inactivator combinations will react with the indicator in the colorimetric test to give color complexes ("off-color") not assocd. with the assay. There is no evidence of a similar interfering action in the horse serum reagent test. All control tests on inactivating agents, in the absence of quaternary ammonium compds., were neg. Attempts to develop a turbidimetric method of measuring concns. of anionic detergents proved unsuccessful. Anionic substances failed to show any progressive differences in turbidity which could be accurately correlated with concn.

ACCESSION NUMBER: 1948:10469 CAPLUS
DOCUMENT NUMBER: 42:10469
ORIGINAL REFERENCE NO.: 42:2300i,2301a-f
TITLE: A rapid method for estimation of use-dilution concentrations of quaternary ammonium germicides
AUTHOR(S): Gain, J. F.; Lawrence, C. A.
CORPORATE SOURCE: Winthrop Chemical Co., Rensselaer, NY
SOURCE: Science (Washington, DC, United States) (1947), 106, 525-7
CODEN: SCIEAS; ISSN: 0036-8075
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
IT 6458-13-5, Ammonium, ethyldimethyl-9-octadecenyl-, bromide
(detn. of bactericidally active concns. of)
RN 6458-13-5 CAPLUS
CN 9-Octadecen-1-aminium, N-ethyl-N,N-dimethyl-, bromide (9CI) (CA INDEX NAME)



L36 ANSWER 15 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)

L36 ANSWER 16 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN

AB Cetyltrimethylammonium bromide (C.T.A.B.; cetavlon), octadecyltrimethylammonium bromide (product QB), (sec-octyl-2-methylheptyl)dimethylethylammonium bromide (onyxide, quartol), dodecyldimethylchloroethoxyethylammonium chloride (isothan OX), dodecyldimethylbenzylammonium chloride (nopco QCL), diisobutylphenoxyethoxyethyl-dimethylbenzylammonium chloride (hyamine 1622, polymine D, phemerol), diisobutyltoloxyethoxyethyldimethylbenzylammonium chloride (hyamine 10X), alkyl (C8H17 to C18H37) dimethylbenzylammonium chlorides (B. T. C. roccal, zephiran), alkyl(C8H17 to C18H37)dimethyl-3,4-dichlorobenzylammonium chlorides (tetrosan), dodecylpyridinium bromide (isothan Q4), cetylpyridinium chloride (ceepryn). Acyl esters of (2-hydroxyethylamino) formylmethylpyridinium chloride (emulsept), and dodecylisoquinolinium bromide (isothan Q15) were tested against Escherichia coli, 2 strains of Aerobacter aerogenes, Micrococcus aureus, Streptococcus cremoris, Bacillus subtilis, a mesophilic flat sour strain isolated from beets (National Canners' Assoc. M-23), a facultative thermophilic flat sour strain isolated from peas (National Canners' Assocn. No. 1518), and an obligate thermophilic flat sour strain isolated from corn (National Canners' Association, No. 1503) to det. their germicidal properties. When complete killing was used as the criterion of comparison, there was a wide variation in relative germicidal efficiency. The cationic germicides appeared to indicate promise as germicides in killing resistant spores if used in concns. much greater than necessary to kill vegetative, cells. When tested against flat sour spores, a high degree of specificity among the different germicides was demonstrated. None of the germicides studied showed any corrosive action on Ni, electrolytic tin plate, hot-dipped tin plate, Mg-Al-Zn alloy, or a Mg-Mn alloy. The metals did not affect the effectiveness of the germicides. The most ineffective cationic germicide, as judged by total killing, killed a large per cent of the cell population even on short exposure in a relatively low concn.

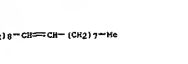
ACCESSION NUMBER: 1947:38812 CAPLUS
DOCUMENT NUMBER: 41:38812
ORIGINAL REFERENCE NO.: 41:7667f-i,7668a
TITLE: The activity of certain cationic germicides
AUTHOR(S): Hucker, G. J.; Brooks, R. P.; Metcalf, Dorothea; Van Esseltine, William
CORPORATE SOURCE: N.Y. Agr. Expt. Sta., Geneva
SOURCE: Food Technology (Chicago, IL, United States) (1947), 1, 321-44
CODEN: FOTEAO; ISSN: 0015-6639
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable

IT 6458-13-5, Ammonium, ethyldimethyl-9-octadecenyl-, bromide (bactericidal action of)

RN 6458-13-5 CAPLUS

CN 9-Octadecen-1-aminium, N-ethyl-N,N-dimethyl-, bromide (9CI) (CA INDEX NAME)

L36 ANSWER 16 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)



L36 ANSWER 17 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN

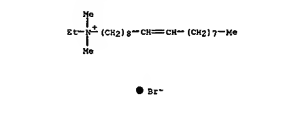
AB The possible use of ceepryn (hexadecylpyridium chloride) (I) and phemerol [p-tert-octylphenoxyethoxyethyl]dimethylbenzylammonium chloride) (II) as preservatives for solns. of gelatins or sucrose or both was studied on account of their high bactericidal power and low toxicity. The min. effective concn. of both compds. is tabulated against concns. of gelatin and (or) sucrose. Some inconsistencies are discussed, and I was found to give better results than II.

ACCESSION NUMBER: 1947:38811 CAPLUS
DOCUMENT NUMBER: 41:38811
ORIGINAL REFERENCE NO.: 41:7667d-f
TITLE: Quaternary ammonium compounds as preservatives
AUTHOR(S): Tice, L. F.; Moore, A. W.
CORPORATE SOURCE: Philadelphia Coll. of Pharm. and Sci., PA
SOURCE: Journal of the American Pharmaceutical Association, Scientific Edition (1947), 36, 48-9
CODEN: JAPMA8; ISSN: 0095-9553
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable

IT 6458-13-5, Ammonium, ethyldimethyl-9-octadecenyl-, bromide (bactericidal action of)

RN 6458-13-5 CAPLUS

CN 9-Octadecen-1-aminium, N-ethyl-N,N-dimethyl-, bromide (9CI) (CA INDEX NAME)



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DICTIONARY FILE UPDATES:  23 DEC 2003  HIGHEST RN 630084-36-5

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to the file summary sheet on the web at:
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                        BATCH    **COMPLETE**
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PROJECTED ANSWERS:                0 TO        0

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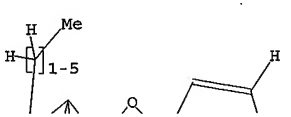

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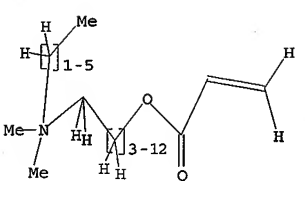

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FILE COVERS 1907 - 24 Dec 2003 VOL 139 ISS 26
FILE LAST UPDATED: 23 Dec 2003 (20031223/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s l44
L45 4 L44

=> d l45 1-4 abs ibib hitstr

L45 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2003 ACS on STN

AB An ink receptive substrate comprises (i) a support material; and (ii) a porous polymer layer on the support material obtained by polymn. of a microemulsion on the support material; wherein the microemulsion comprises

a co-polymerizable surfactant. Also claimed is a process for prepg. an ink receptive substrate carrying a desired image and a kit for printing the substrate with ink. Thus a microemulsion comprising butyldimethyl-(11-(methylacryloloxy)undecyl)ammonium bromide 2.5, dipropyleneglycol diacrylate 2.5, water 5.0, and 2-hydroxy-2-methyl-1-Ph propan-1-one (Darocur 1173) 0.2 g was coated onto a support material Melinex grade 505 (polyethylene terephthalate) using a No. 5 Meyer bar and

then polymd. in a UV Parker box and finally dried in a vacuum oven at 60.degree. for 1 h to give a clear ink receptive film of this invention.

ACCESSION NUMBER: 2000:911173 CAPLUS
DOCUMENT NUMBER: 134:57745
TITLE: Ink receptive substrates
INVENTOR(S): Annable, Tom; Padget, John Christopher
PATENT ASSIGNEE(S): Avecia Limited, Uk
SOURCE: PCT Int. Appl., 23 pp.
CODEN: PIXKD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000076553	A1	20001228	WO 2000-GB2212	20000608
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RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
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PRIORITY APPLN. INFO.:			GB 1999-14447	A 19990622
			GB 2000-7277	A 20000324
			WO 2000-GB2212	W 20000608

IT 313983-53-8P
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(ink receptive substrates)
RN 313983-53-8 CAPLUS
CN 1-Undecanaminium,
N-butyl-N,N-dimethyl-11-[(2-methyl-1-oxo-2-propenyl)oxy]-, bromide, polymer with oxybis(methyl-2,1-ethanediyl) di-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 138807-22-4
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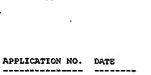

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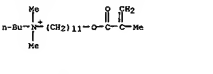
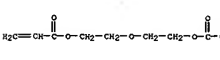
CRN 80-62-6
CMF C5 H8 O2

L45 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)





2 (D1-Me)

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L45 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2003 ACS on STN

AB The title resins are prepd. from (a) an amphiphilic materials [e.g., N-n-Bu-N,N-dimethyl-N-(11-methacryloyloxyundecyl)ammonium bromide], (b) a monomer or mixt. (e.g., Me methacrylate) in an oil phase, and (c) a liq. phase which is non-compatible with the oil phase (e.g., H2O).

ACCESSION NUMBER: 1995:242426 CAPLUS
DOCUMENT NUMBER: 122:11453
TITLE: Acrylic quaternary ammonium compound copolymer-based ion exchange resins with bicontinuous structure
INVENTOR(S): Shimizu, Shinichi
PATENT ASSIGNEE(S): Ici Japan, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 06134322	A2	19940517	JP 1992-286204	19921023
PRIORITY APPLN. INFO.:			JP 1992-286204	19921023

IT 159613-51-1 159613-52-2 159613-53-3
159613-53-3D, chloromethylated or chlorosulfonated
RL: TEM (Technical or engineered material use); USES (Uses)
(acrylic quaternary ammonium compd. copolymer-based ion exchange resins
with bicontinuous structure)

RN 159613-51-1 CAPLUS
CN 1-Undecanaminium,
N-butyl-N,N-dimethyl-11-[(2-methyl-1-oxo-2-propenyl)oxy]-, bromide, polymer with methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 138807-22-4
CMF C21 H42 N O2 . Br

CM 2

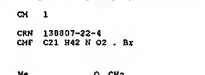
CRN 80-62-6
CMF C5 H8 O2

L45 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)

RN 159613-52-2 CAPLUS
CN 1-Undecanaminium,
N-butyl-N,N-dimethyl-11-[(2-methyl-1-oxo-2-propenyl)oxy]-, bromide, polymer with 1,2-ethanediyl bis(2-methyl-2-propenoate) and methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

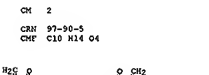
CM 1

CRN 138807-22-4
CMF C21 H42 N O2 . Br



CM 2

CRN 97-90-5
CMF C10 H14 O4



CM 3

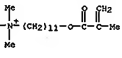
CRN 80-62-6
CMF C5 H8 O2

RN 159613-53-3 CAPLUS
CN 1-Undecanaminium,
N-butyl-N,N-dimethyl-11-[(2-methyl-1-oxo-2-propenyl)oxy]-, bromide, polymer with diethenylbenzene and ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

L45 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)

CRN 138807-22-4
CMF C21 H42 N O2 . Br



● Br⁻

CM 2

CRN 1321-74-0
CMF C10 H10
CCI IDS

2 [Dl—CH═CH2]

CM 3

CRN 100-42-5
CMF C8 H8

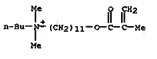
H2C═CH—Ph

RN 159613-53-3 CAPLUS
CN 1-Undecanaminium,
N-butyl-N,N-dimethyl-11-[(2-methyl-1-oxo-2-propenyl)oxy]-
, bromide, polymer with diethenylbenzene and ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 138807-22-4
CMF C21 H42 N O2 . Br

L45 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)



● Br⁻

CM 2

CRN 1321-74-0
CMF C10 H10
CCI IDS

2 [Dl—CH═CH2]

CM 3

CRN 100-42-5
CMF C8 H8

H2C═CH—Ph

L45 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2003 ACS on STN

AB The title microemulsions when polymd. yield transparent solids wherein both the solid and the aq. liq. phase are continuous. The solids may be useful in sepn. processes, e.g. reverse osmosis and purifn. of proteins. A bicontinuous microemulsion consisted of H2O 20, 19:1 n-Bu methacrylate/diethylene methacrylate mixt. 40, CH2:CMeCO2(CH2)11N+Me2Bu Br- 40, camphor quinone 0.75, and dimethylaminoethyl methacrylate 0.75% and was exposed to electromagnetic radiation of 470 nm giving a clear solid material with elec. cond. 5 LmK-1.

ACCESSION NUMBER: 1992:409103 CAPLUS
DOCUMENT NUMBER: 117:9103
TITLE: Bicontinuous microemulsions containing addition-polymerizable oils and surfactants
INVENTOR(S): Price, Anthony
PATENT ASSIGNEE(S): Imperial Chemical Industries PLC, UK
SOURCE: Eur. Pat. Appl., 12 pp.
CODEN: EPXKDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

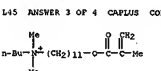
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 469450	A1	19911002	EP 1991-302030	19910311
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE				
AU 9172877	A1	19911003	AU 1991-72877	19910314
AU 643259	B2	19931111		
ZA 9101908	A	19920325	ZA 1991-1908	19910314
CA 2038399	AA	19910927	CA 1991-2038399	19910315
US 5151217	A	19920929	US 1991-673310	19910322
JP 05038828	A2	19930219	JP 1991-216764	19910326

PRIORITY APPLN. INFO.: GB 1990-6726 19900326
OTHER SOURCE(S): MARPAT 117:9103
IT 138807-23-5P 138807-24-6P 138807-25-7P
138807-26-8P 141052-46-2P
RL: PREP (Preparation)
(transparent solids, prepn. of, from bicontinuous microemulsion, for sepn. use)
RN 138807-23-5 CAPLUS
CN 1-Undecanaminium,
N-butyl-N,N-dimethyl-11-[(2-methyl-1-oxo-2-propenyl)oxy]-
, bromide, polymer with butyl 2-methyl-2-propenoate, 2-(dimethylamino)ethyl 2-methyl-2-propenoate and oxydi-2,1-ethanediyl bis(2-methyl-2-propenoate) (9CI) (CA INDEX NAME)

CM 1

CRN 138807-22-4
CMF C21 H42 N O2 . Br

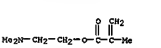
L45 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)



● Br⁻

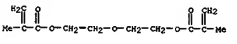
CM 2

CRN 2867-47-2
CMF C8 H15 N O2



CM 3

CRN 2358-84-1
CMF C12 H18 O5



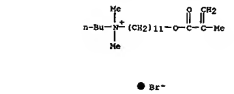
CM 4

CRN 97-88-1
CMF C8 H14 O2

RN 138807-24-6 CAPLUS
CN 1-Undecanaminium,
N-butyl-N,N-dimethyl-11-[(2-methyl-1-oxo-2-propenyl)oxy]-
, bromide, polymer with 2-(dimethylamino)ethyl 2-methyl-2-propenoate, ethyl 2-methyl-2-propenoate-2-(dimethylamino)ethyl 2-methyl-2-propenoate and oxydi-2,1-ethanediyl bis(2-methyl-2-propenoate) (9CI) (CA INDEX NAME)

CM 1

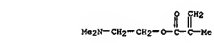
CRN 138807-22-4
CMF C21 H42 N O2 . Br



● Br⁻

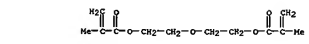
CM 2

CRN 2867-47-2
CMF C8 H15 N O2



CM 3

CRN 2358-84-1
CMF C12 H18 O5



CM 4

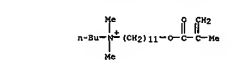
CRN 97-63-2
CMF C6 H10 O2

RN 138807-25-7 CAPLUS
CN 1-Undecanaminium,
N-butyl-N,N-dimethyl-11-[(2-methyl-1-oxo-2-propenyl)oxy]-
, bromide, polymer with 2-(dimethylamino)ethyl 2-methyl-2-propenoate,
dodecyl 2-methyl-2-propenoate and oxydi-2,1-ethanediyl
bis(2-methyl-2-propenoate) (9CI) (CA INDEX NAME)

CM 1

CRN 138807-22-4
CMF C21 H42 N O2 . Br

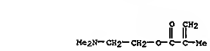
CMF C21 H42 N O2 . Br



● Br⁻

CM 2

CRN 2867-47-2
CMF C8 H15 N O2



CM 3

CRN 97-88-1
CMF C8 H14 O2

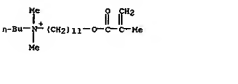
CM 4

CRN 97-63-2
CMF C6 H10 O2

RN 141052-46-2 CAPLUS
CN 1-Undecanaminium,
N-hexyl-N,N-dimethyl-11-[(2-methyl-1-oxo-2-propenyl)oxy]-
, bromide, polymer with butylethenylbenzene and diethenylbenzene (9CI)
(CA INDEX NAME)

CM 1

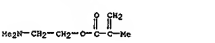
CRN 141052-45-1
CMF C23 H46 N O2 . Br



● Br⁻

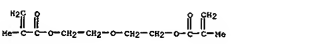
CM 2

CRN 2867-47-2
CMF C8 H15 N O2



CM 3

CRN 2358-84-1
CMF C12 H18 O5



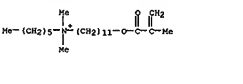
CM 4

CRN 142-90-5
CMF C16 H30 O2

RN 138807-26-8 CAPLUS
CN 1-Undecanaminium,
N-butyl-N,N-dimethyl-11-[(2-methyl-1-oxo-2-propenyl)oxy]-
, bromide, polymer with butyl 2-methyl-2-propenoate, 2-
(dimethylamino)ethyl 2-methyl-2-propenoate and ethyl
2-methyl-2-propenoate
(9CI) (CA INDEX NAME)

CM 1

CRN 138807-22-4



● Br⁻

CM 2

CRN 50851-78-0
CMF C12 H16
CCI IDS

D1-Bu-n

CM 3

CRN 1321-74-0
CMF C10 H10
CCI IDS

L45 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2003 ACS on STN

AB The liq.-crystal compns. contain a polymer contg. .gtoreq.70% unit of [CR1(COZYM*R2R3R4 X-)CH2] (I) (R1 = H, Me; R2-4 = C1-4 alkyl, haloalkyl, hydroxyalkyl; Y = halo, OH, NO3, ClO4, thiocyanato, OAc; Y = C1-12 alkylene, hydroxyalkylene; Z = O, NH) and an org. anionic compd. having .gtoreq.2 linear hydrophobic groups and sulfonic or phosphoric acid group.

The liq.-crystal compns. are useful for sensors and selectively permeable membranes as biomembrane substitutes. An aq. soln. of the polymer having repeating unit I (R1, R2, R3, R4 = Me, X = Cl, Y = CH2CH2, Z = O) (II) was

mixed with an aq. dispersion of didodecyl Na sulfosuccinate to give a white ppt. which showed anisotropic phase at room temp. and when heated, showed a cryst./liq.-crystal transition at 9.degree.. II was soaked in 0.1 M SDS or 90% EtOH for 1 wk or 1 day, resp., to show .ltoreq.3% dissoln. into these solns.

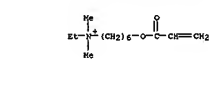
ACCESSION NUMBER: 1989:145499 CAPLUS
DOCUMENT NUMBER: 110:145499
TITLE: Liquid crystal compositions containing quaternary ammonium-linked polyacrylate and sulfonate or phosphate compound acid group
INVENTOR(S): Norimoto, Hikari; Yanagi, Hiroyuki; Ogata, Takayuki; Mizutani, Yukio
PATENT ASSIGNEE(S): Tokuyama Soda Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 8 CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 63037185	A2	19880217	JP 1986-180192	19860801
JP 07065042	B4	19950712		

PRIORITY APPLN. INFO.: JP 1986-180192 19860801

IT 116274-40-9 116274-44-3
RL: PRP (Properties)
(liq.-crystal compn. contg. dialkyl sulfosuccinate or phosphate salt and, for biomembrane substitute)

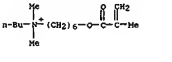
RN 116274-40-9 CAPLUS
CN 1-Hexanaminium, N-ethyl-N,N-dimethyl-6-[(1-oxo-2-propenyl)oxy]-, bromide (9CI) (CA INDEX NAME)



● Br-

RN 116274-44-3 CAPLUS
CN 1-Hexanaminium, N-butyl-N,N-dimethyl-6-[(2-methyl-1-oxo-2-propenyl)oxy]-, bromide (9CI) (CA INDEX NAME)

L45 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)



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DICTIONARY FILE UPDATES:  23 DEC 2003  HIGHEST RN 630084-36-5

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http://www.cas.org/ONLINE/DBSS/registryss.html

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L46      STRUCTURE UPLOADED

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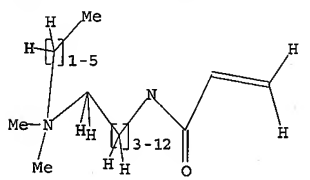


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100.0% PROCESSED       84 ITERATIONS                          0 ANSWERS
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                        BATCH   **COMPLETE**
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PROJECTED ANSWERS:                0 TO        0

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SEARCH TIME: 00.00.01

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